Utah Water Assessment & Conditions Monitoring
(Drought Webinar)

The meeting will begin shortly

UTAH CLIMATE CENTER

NOAA

USGS science for a changing world

BUREAU OF RECLAMATION

NRCS Natural Resources Conservation Service

UDAF

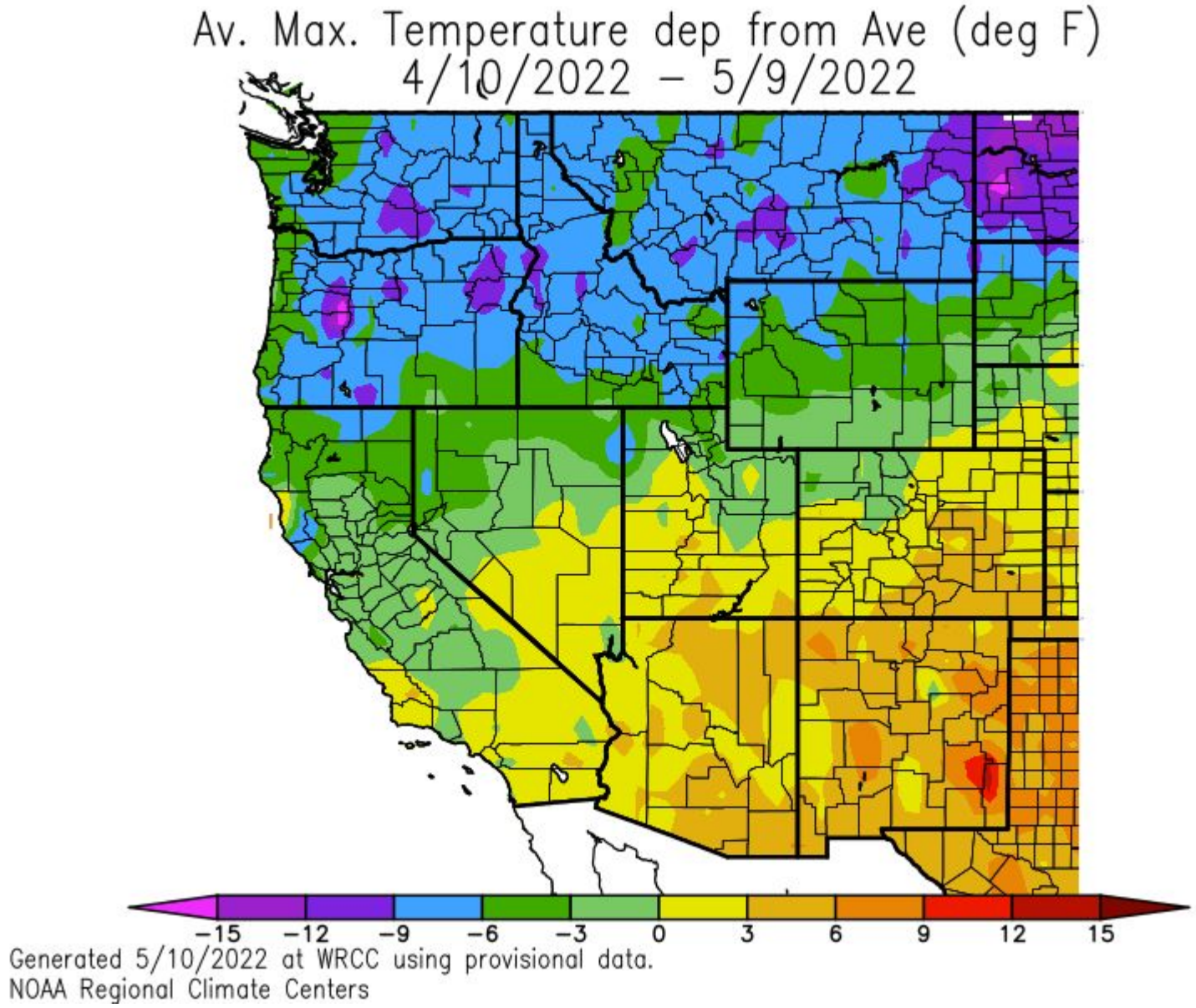
UTAH DNR WATER RESOURCES

Thank you to our contributors

Utah Water Assessment & Conditions Monitoring Webinar

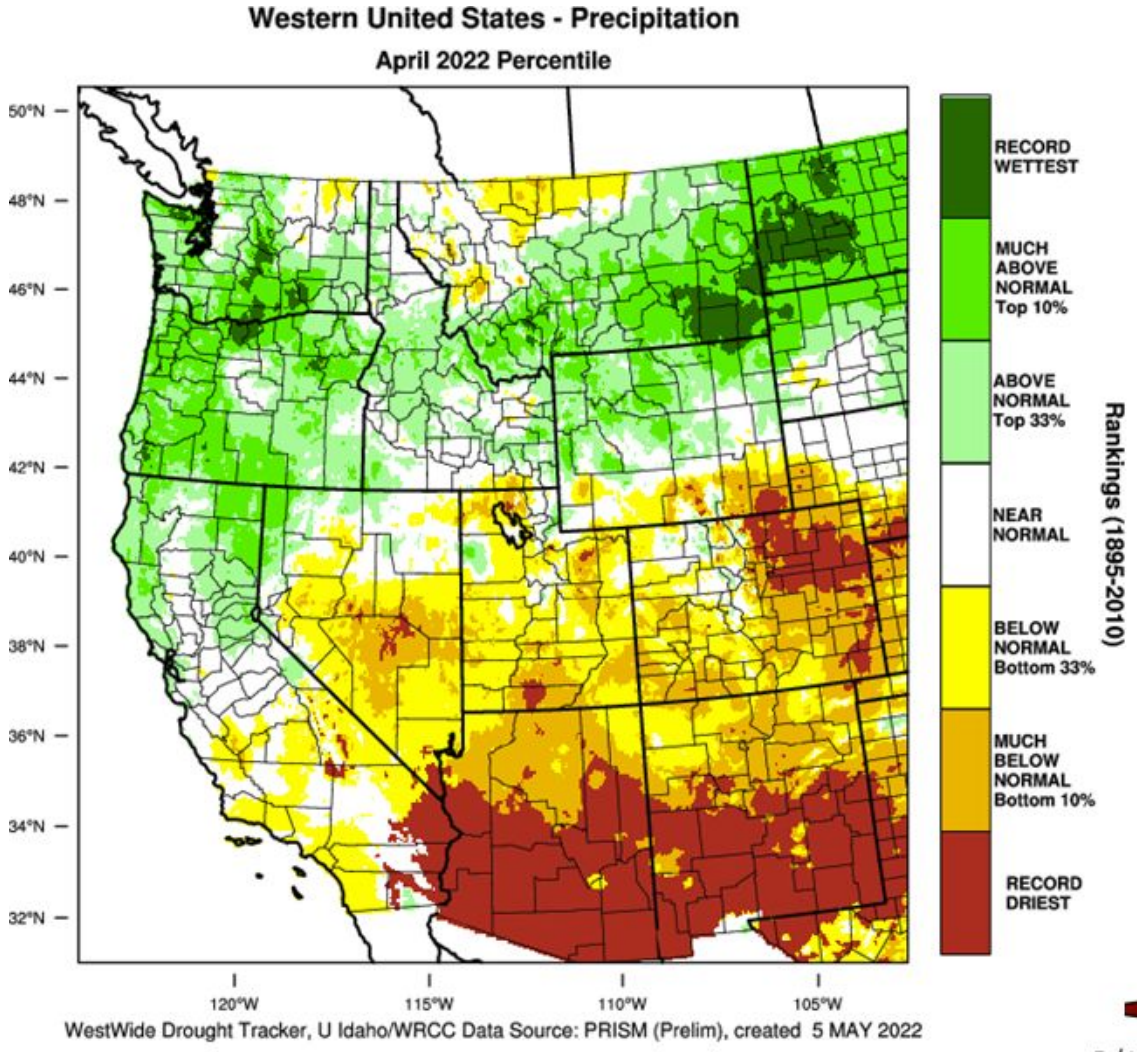
May 10, 2022

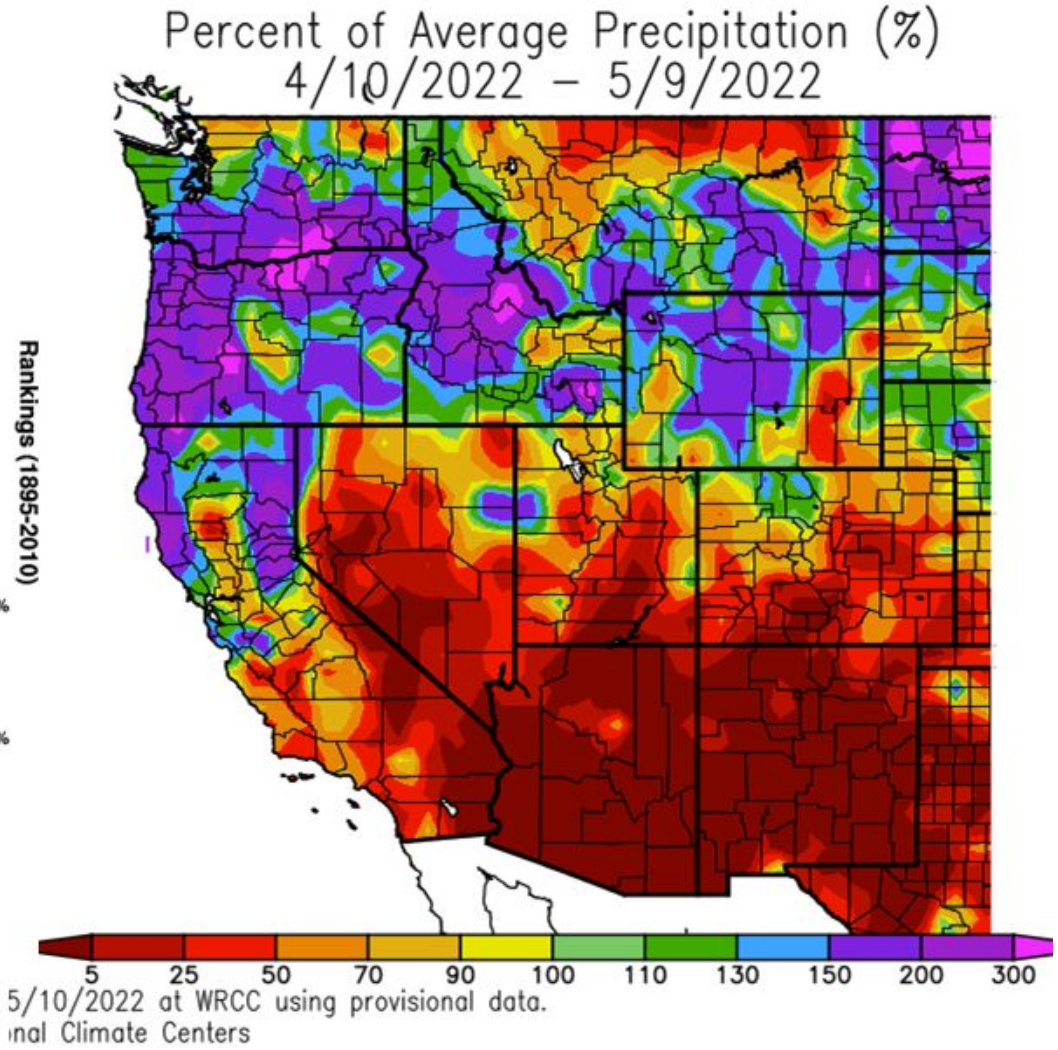
30-day Temperature departure from average



Agency - Utah Climate Center
Presenter - Jon Meyer

April and Early May Precipitation





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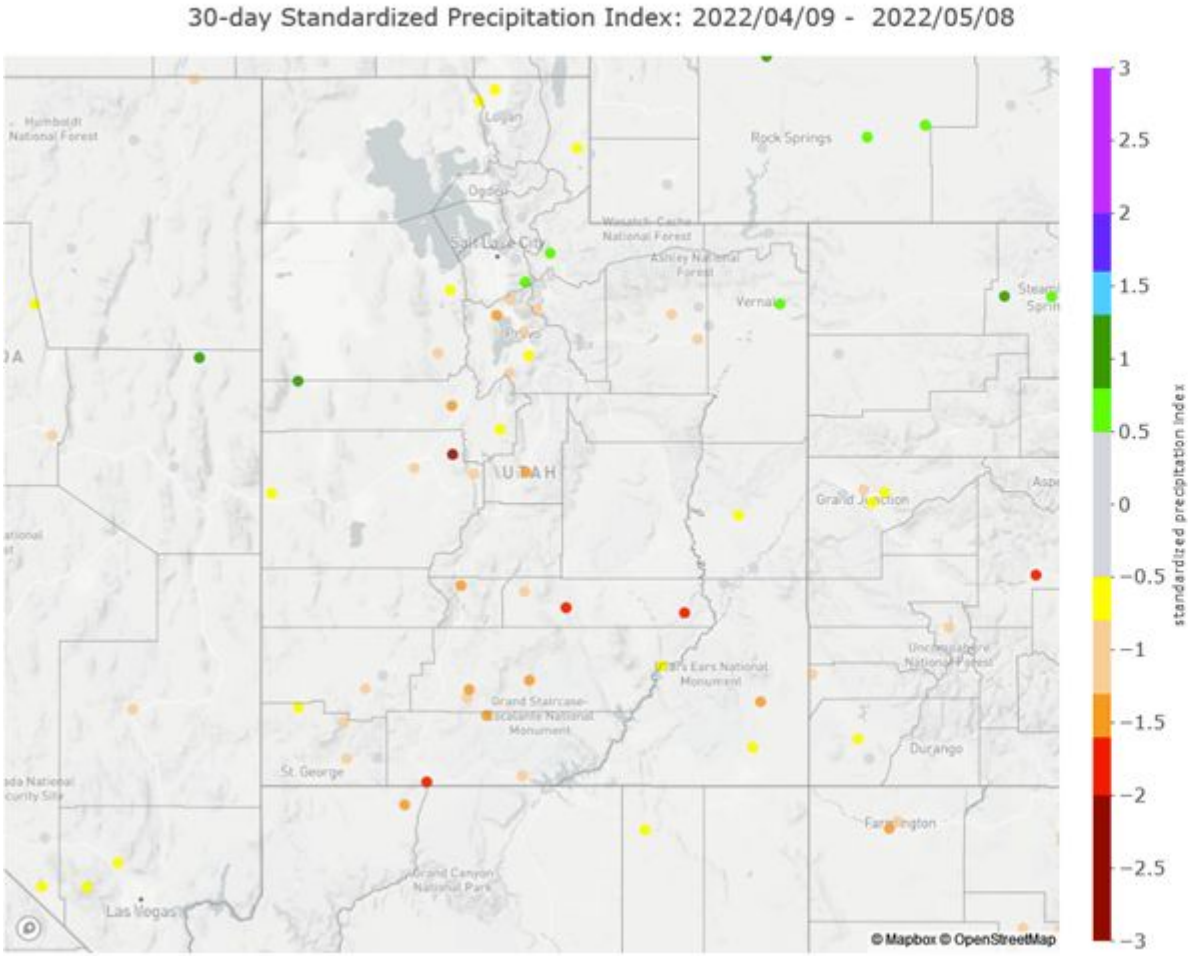
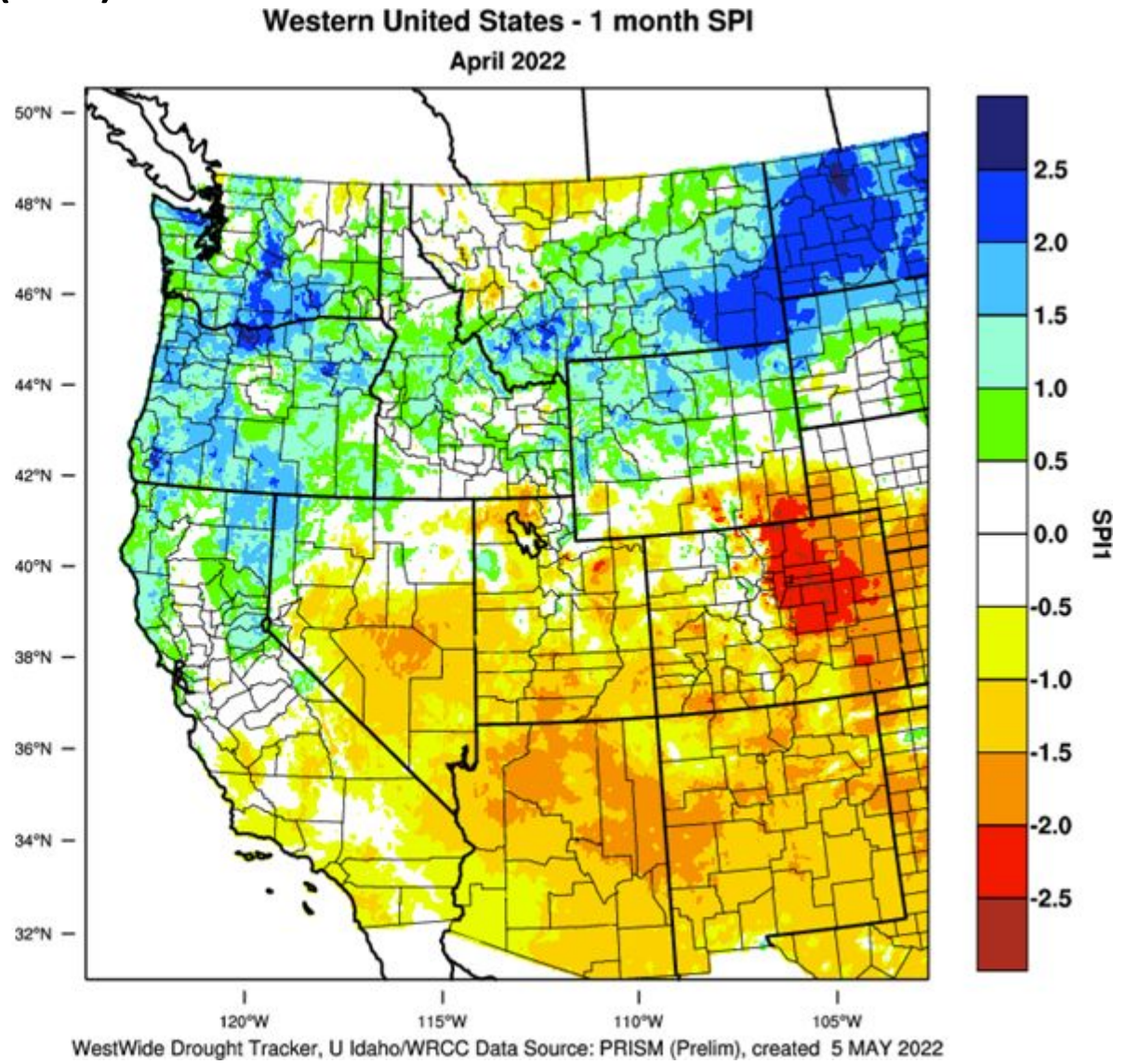
30-day Standardized Precipitation Index (SPI)





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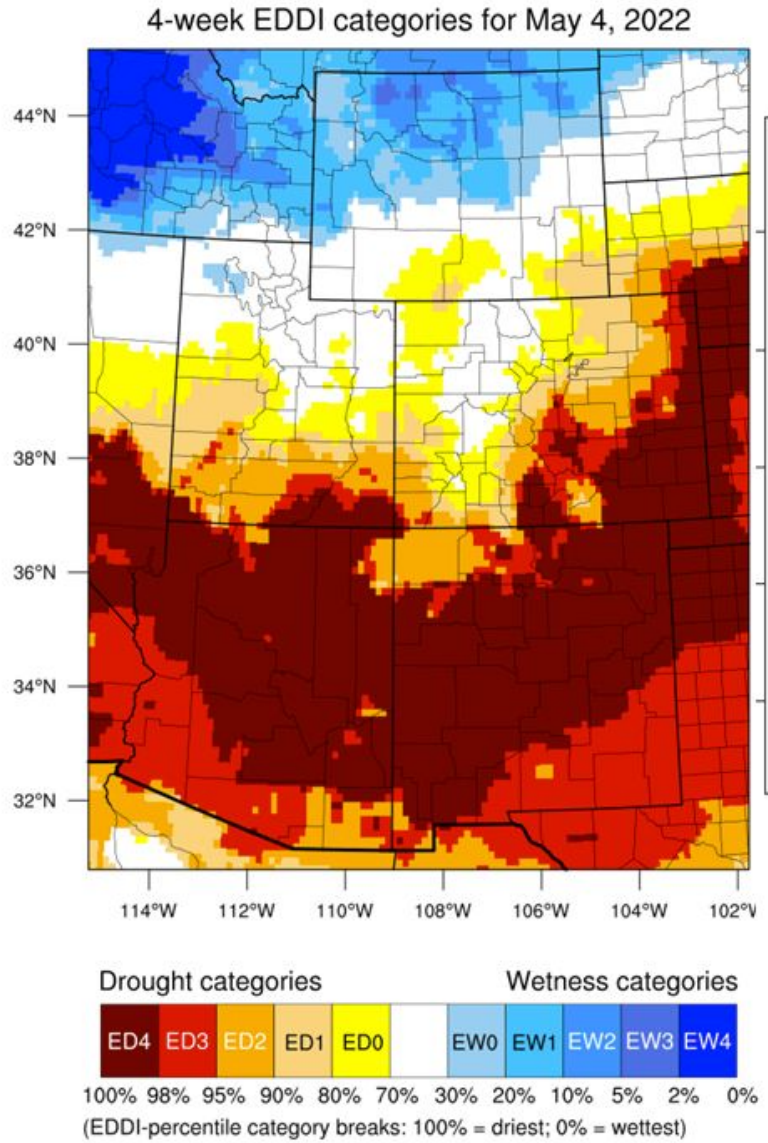
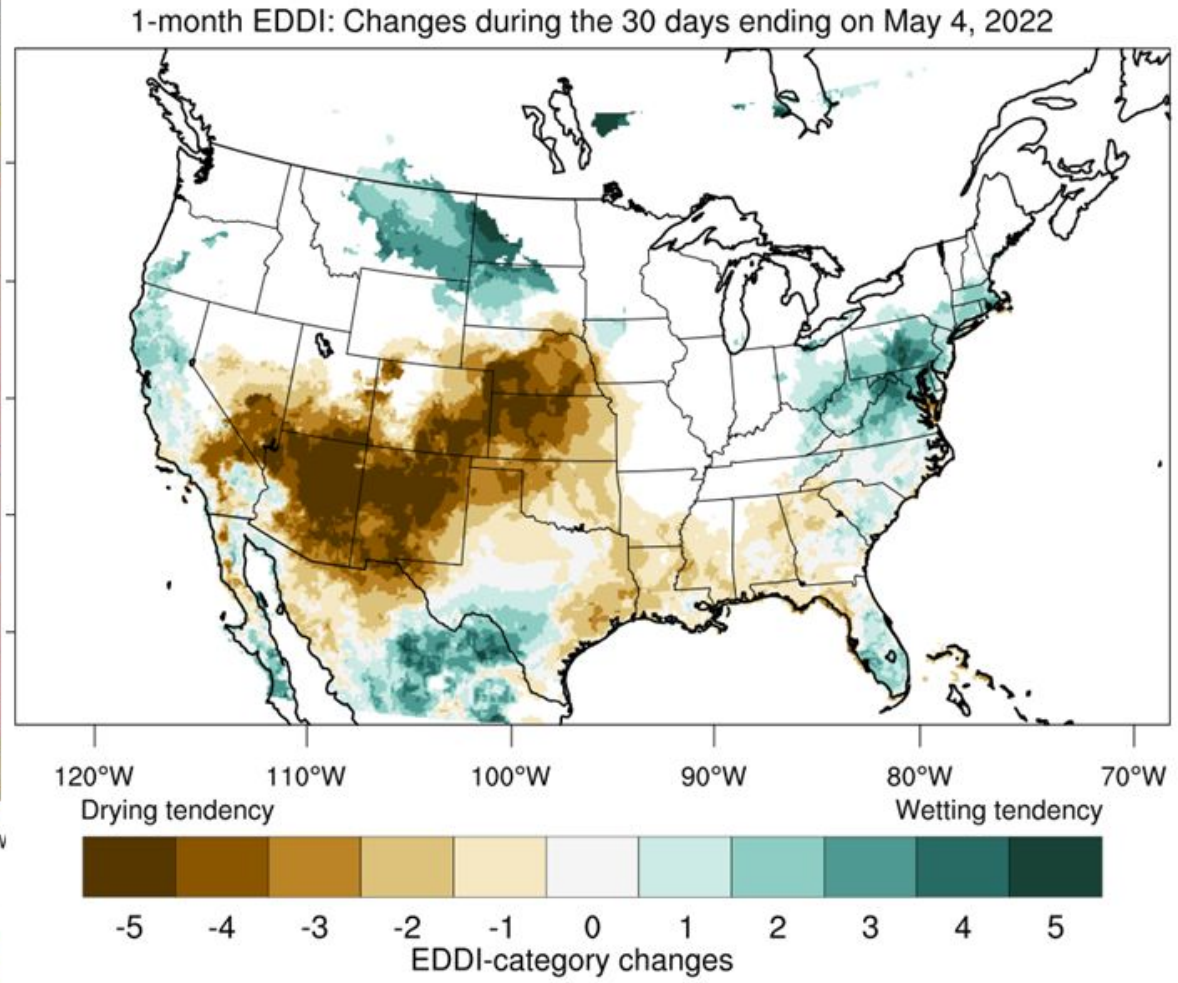
Evaporative Demand Drought Index (EDDI)





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Evaporative Stress Index (ESI)

U.S. Vegetation and Drought

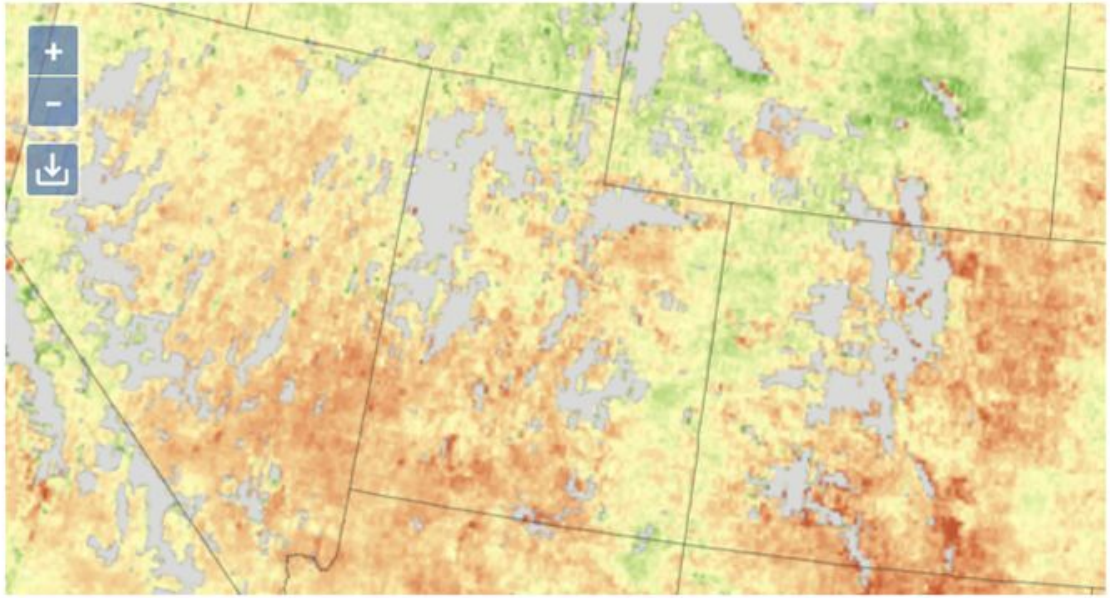
Evaporative Stress Index | **VegDRI** | **Vegetation Health Index**

The Evaporative Stress Index (ESI) describes temporal anomalies in evapotranspiration (ET), highlighting areas with anomalously high or low rates of water use across the land surface. The ESI also demonstrates capability for capturing early signals of "flash drought," brought on by extended periods of hot, dry, and windy conditions leading to rapid soil moisture depletion. Learn more.

Standardized ET/PET Anomolies

***Currently, data are only available for the contiguous U.S.**

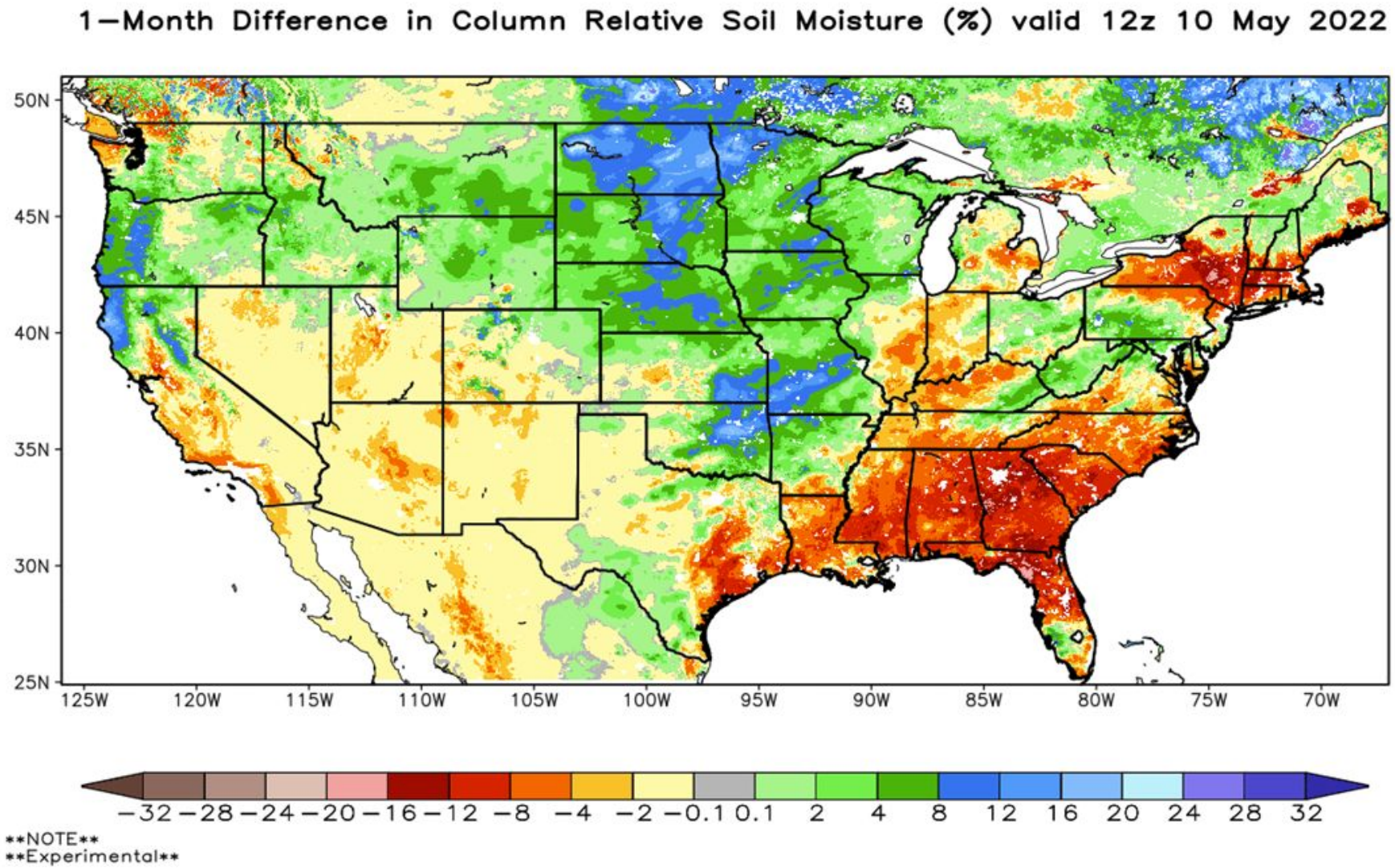
Source(s): NASA SERVIR



Last Updated - 05/10/22

Agency - Division of Water Resources
Presenter - Laura Haskell

Soil Moisture (one-month change)



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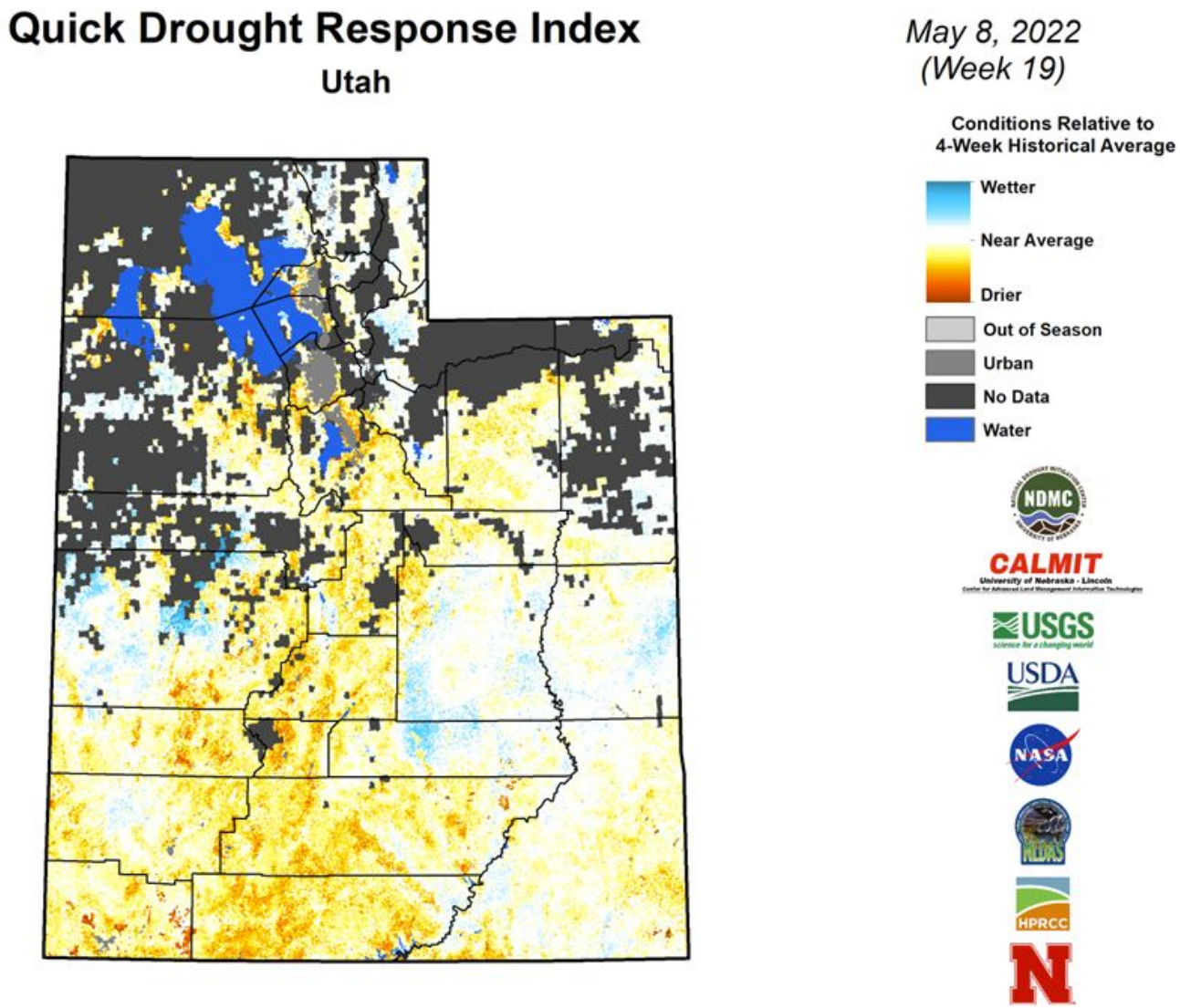
Presenter - Jon Meyer

Quick Drought Response Index (Quick DRI)



Agency - Utah Climate Center
Presenter - Jon Meyer

Veg DRI

Evaporative Stress Index | VegDRI | Vegetation Health Index

The Vegetation Drought Response Index (VegDRI) is a weekly depiction of drought's effects on vegetation stress across the contiguous United States, produced by the National Drought Mitigation Center, the U.S. Geological Survey's National Center for Earth Resources Observation and Science, and the High Plains Regional Climate Center. Learn more.

Drought Conditions

Pre-Drought Stress | Moderate Drought | Severe Drought | Extreme Drought

Moist Conditions

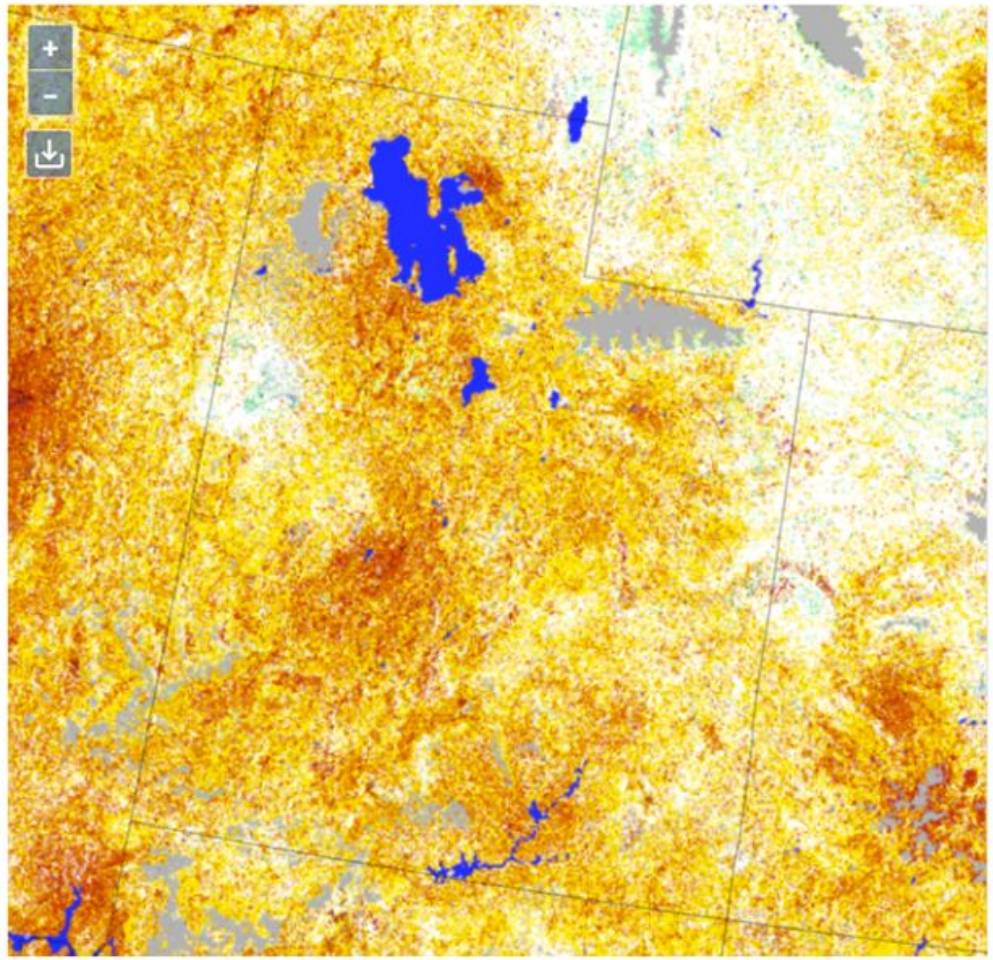
Unusually Moist | Very Moist | Extremely Moist

Other Conditions

Near Normal | Out of Season | Water | Other Landcover

***Currently, data are only available for the contiguous U.S.**

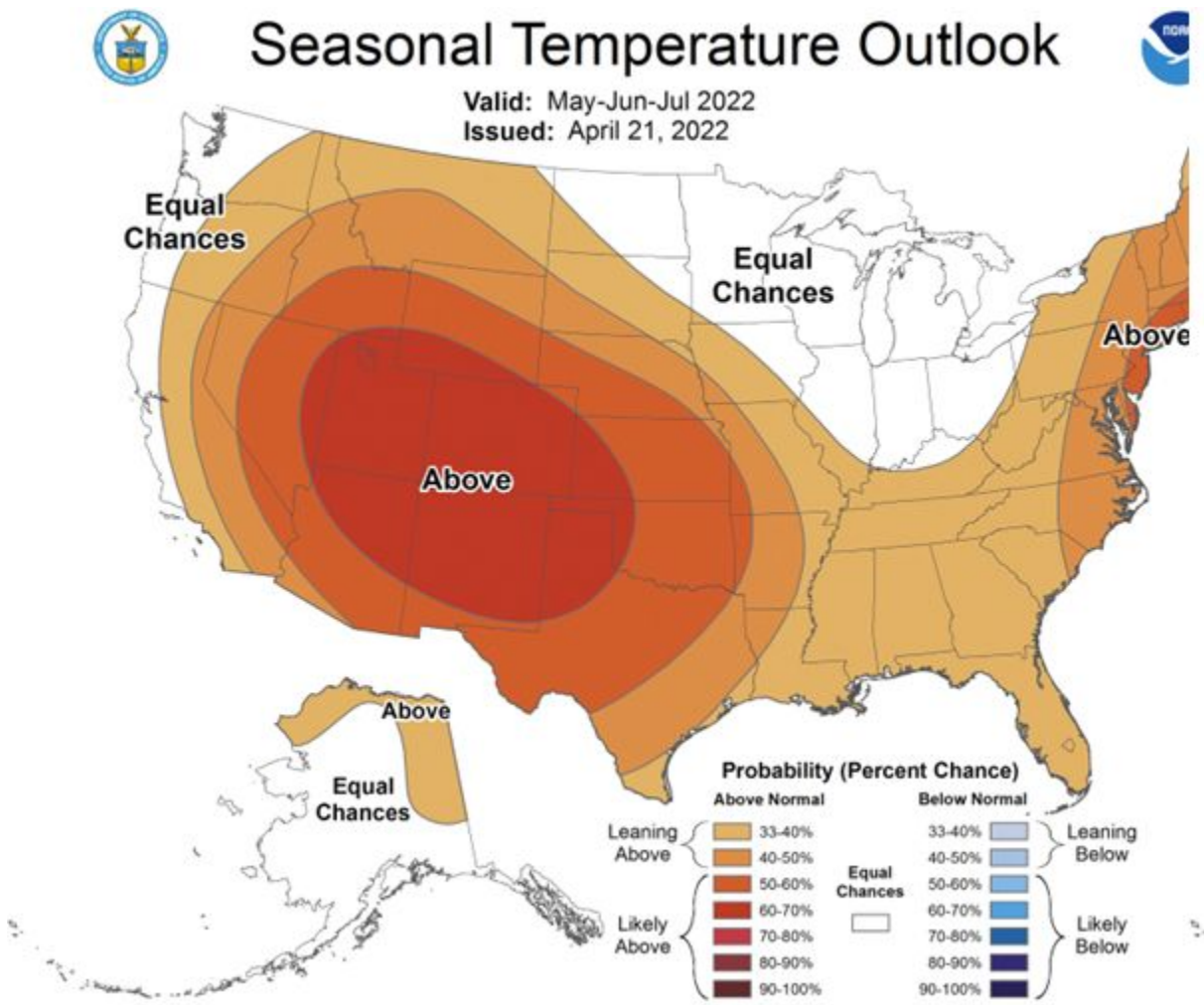
Source(s): NDMC, USGS, HPRCC

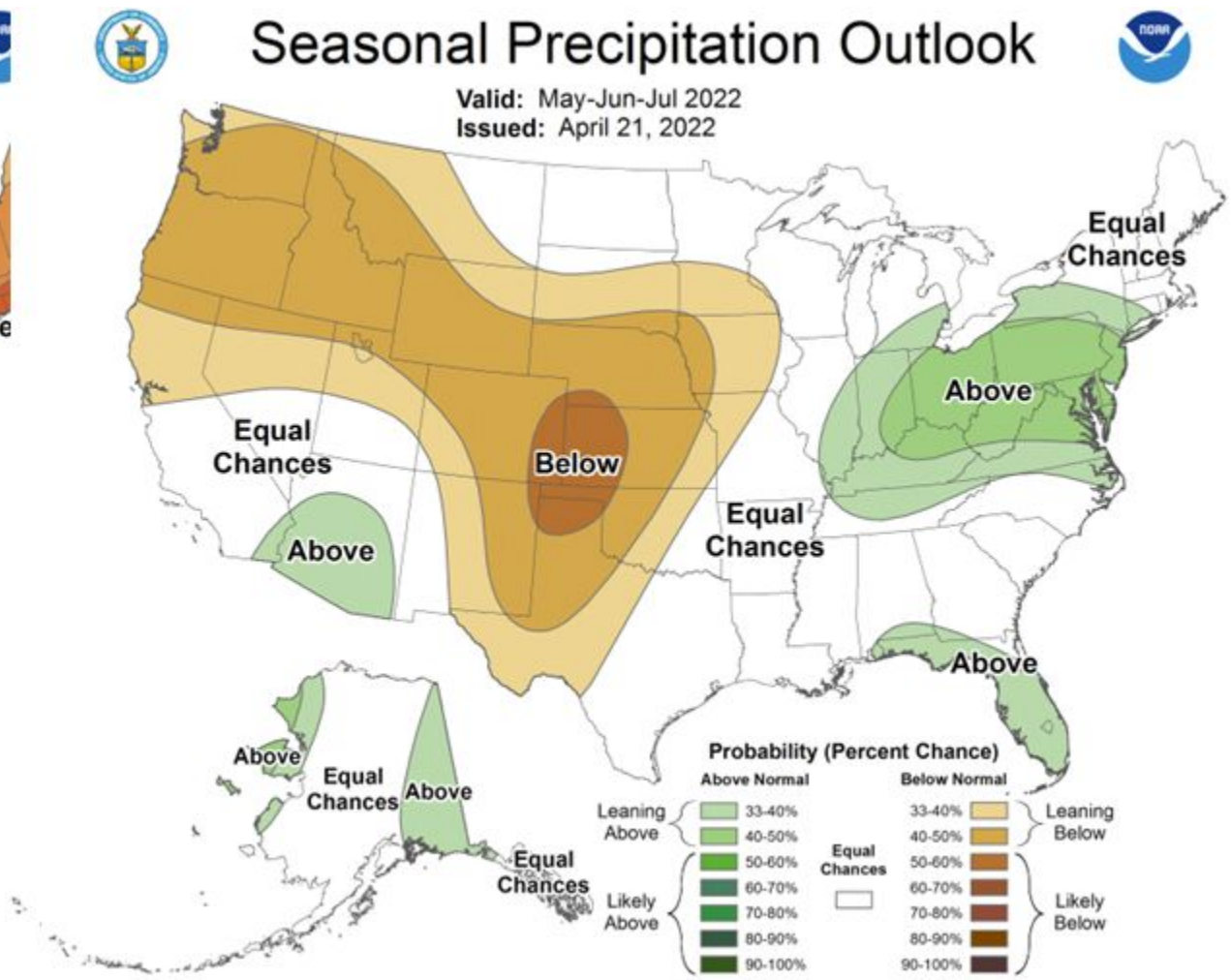


Updates Weekly - 05/10/22

Agency - Utah Climate Center
Presenter - Jon Meyer

CPC 3-month (May-July) seasonal outlook





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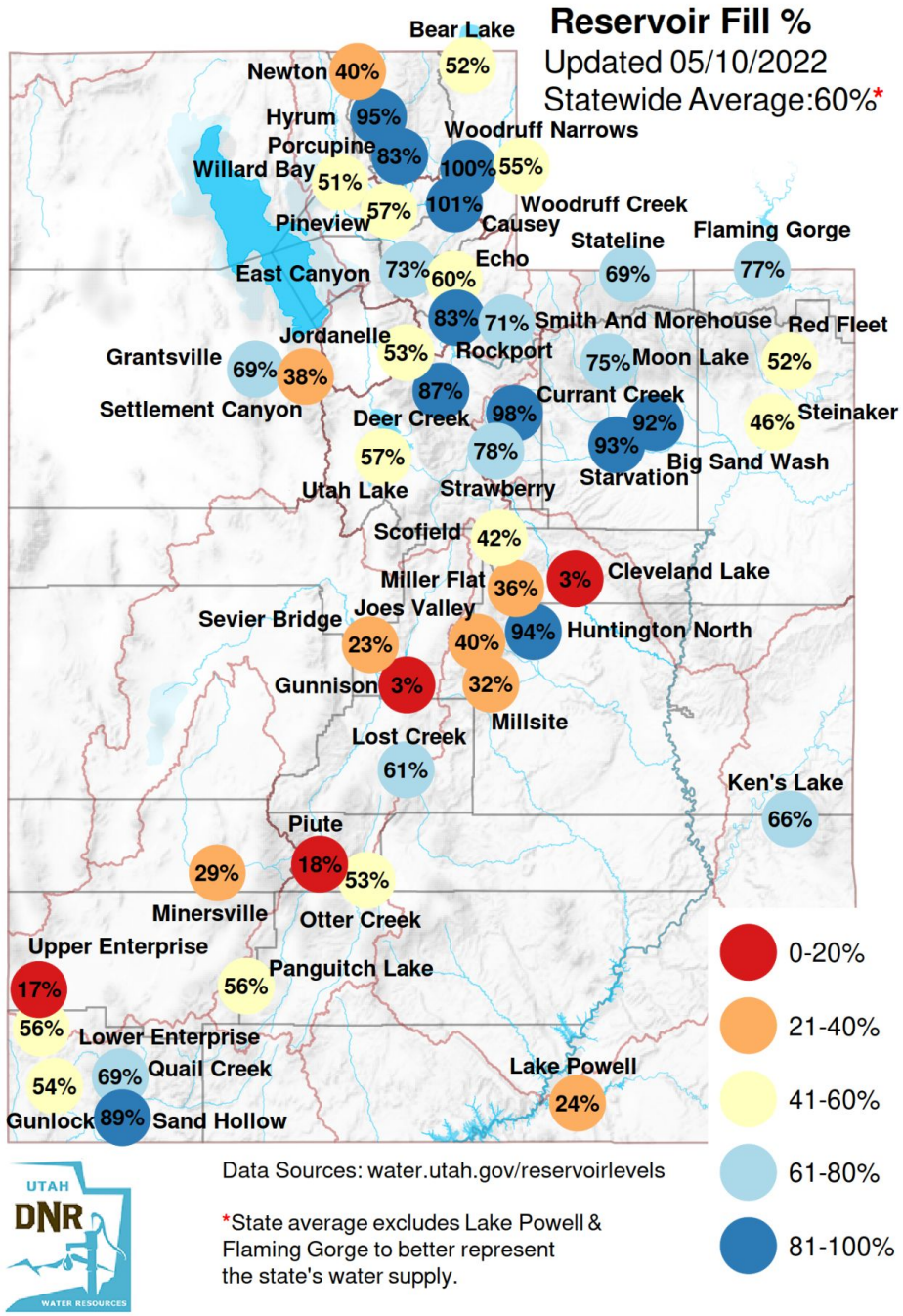
Presenter - Jon Meyer

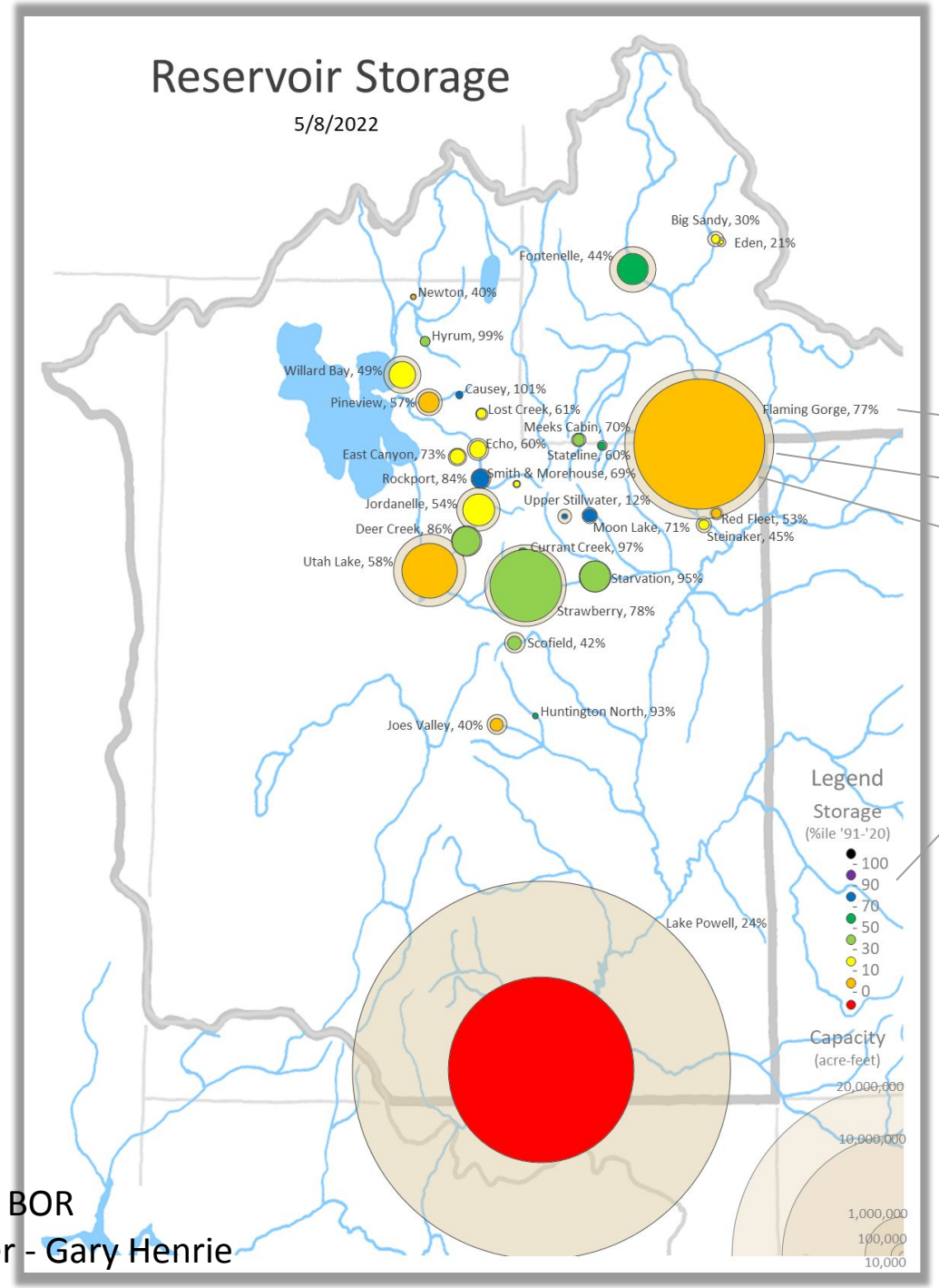
Statewide average: 60% of available capacity

Lower than this time last year

22 monitored reservoirs below 55%



Agency - Division of Water Resources
Presenter - Laura Haskell



Overall storage: 66%

(Excluding Fontenelle, Flaming Gorge, and Lake Powell)

Reservoir name, current percent full (text)

Reservoir Live Capacity (outer dot)

Reservoir current Live Storage (inner dot)

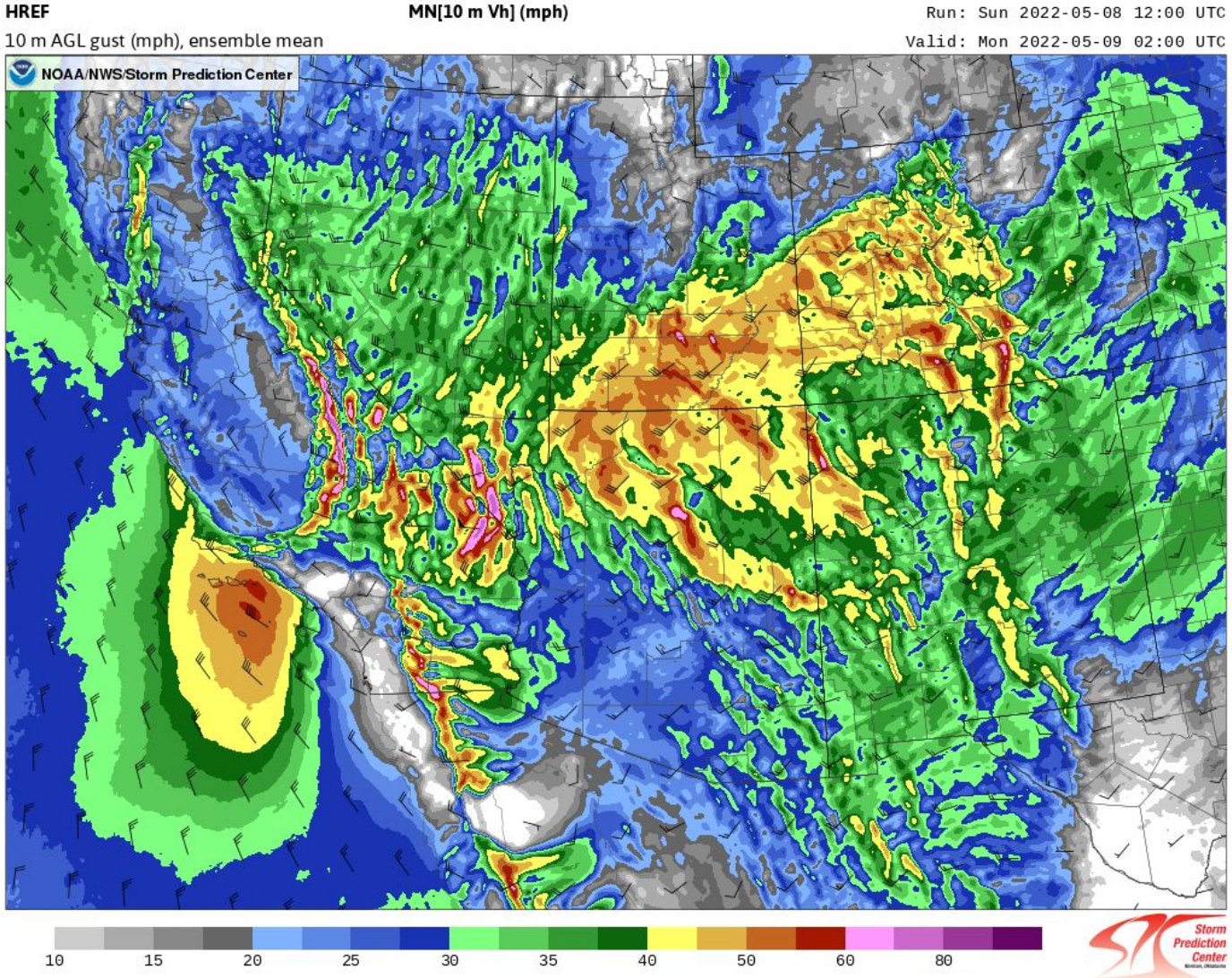
Colored by percentile of 1991-2020 storage for this date

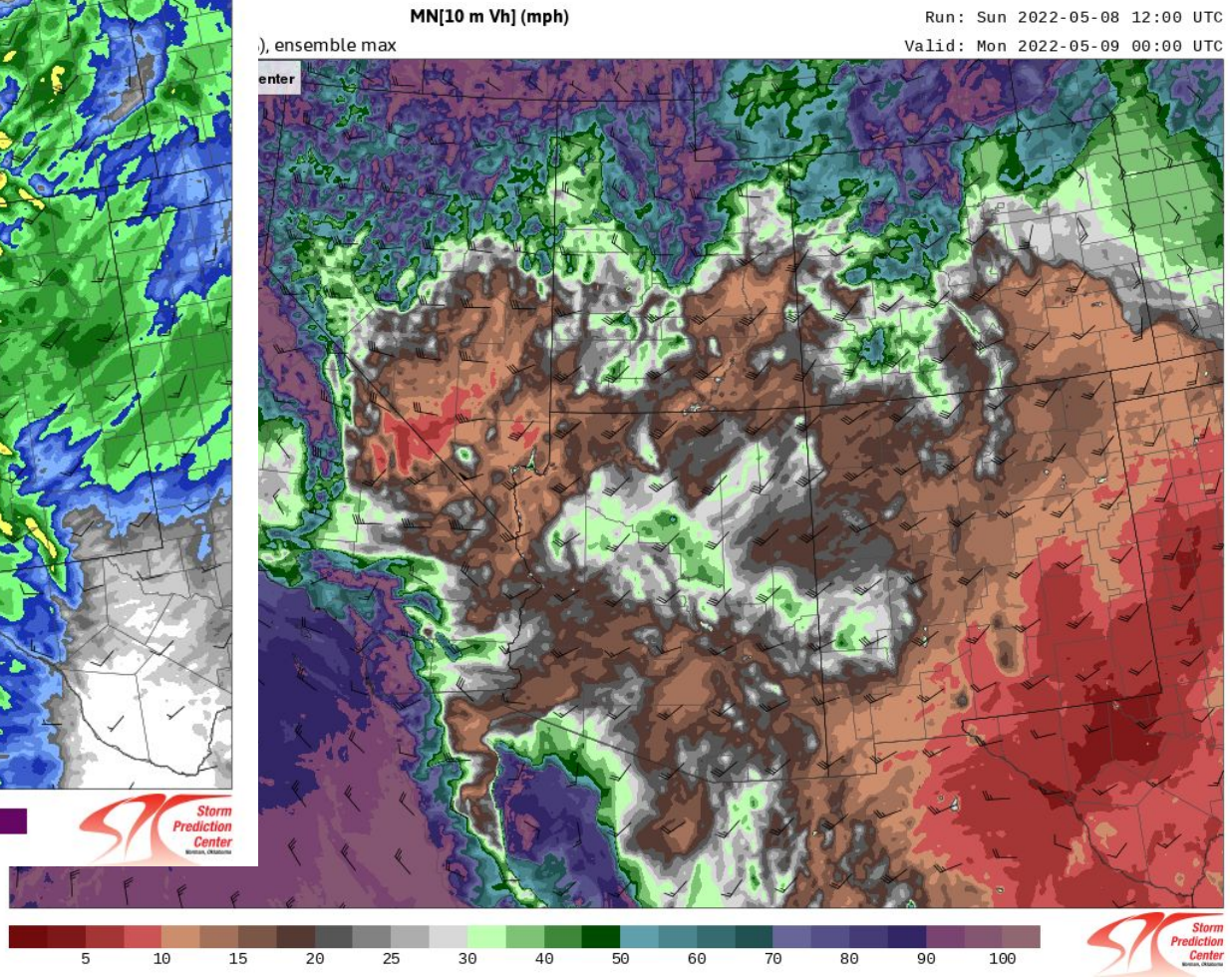
Agency - BOR

Presenter - Gary Henrie

BUREAU OF RECLAMATION

Winds and Relative Humidity - Sunday 5/08/2022





Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Great Basin Coordination Center - Left Fork Fire

New Start - Dixie National Forest - 5/9/2022

- Wind driven
- Ran to almost 100 acres last 24 hours
- 8000+ ft elevation

Southern Utah Energy Release Component (ERC's)

- Many sites, independent of elevation, are at or near record low values for this date.
- Fuel moistures and recent fire activity more indicative of conditions typically seen in June or early July.

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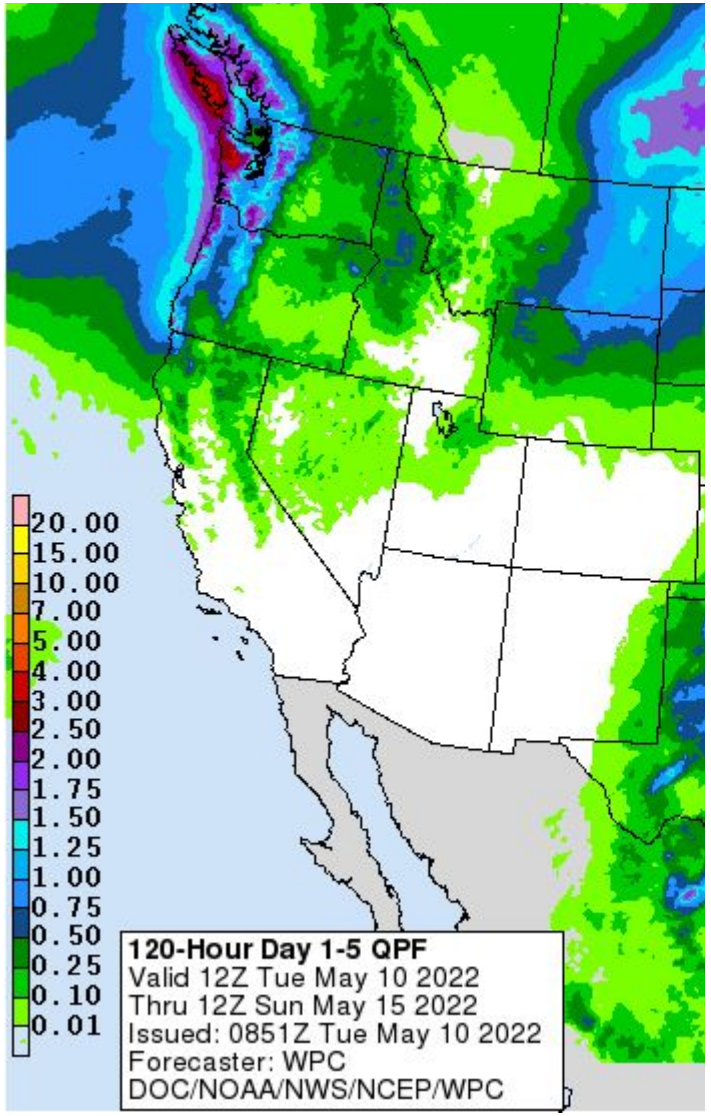
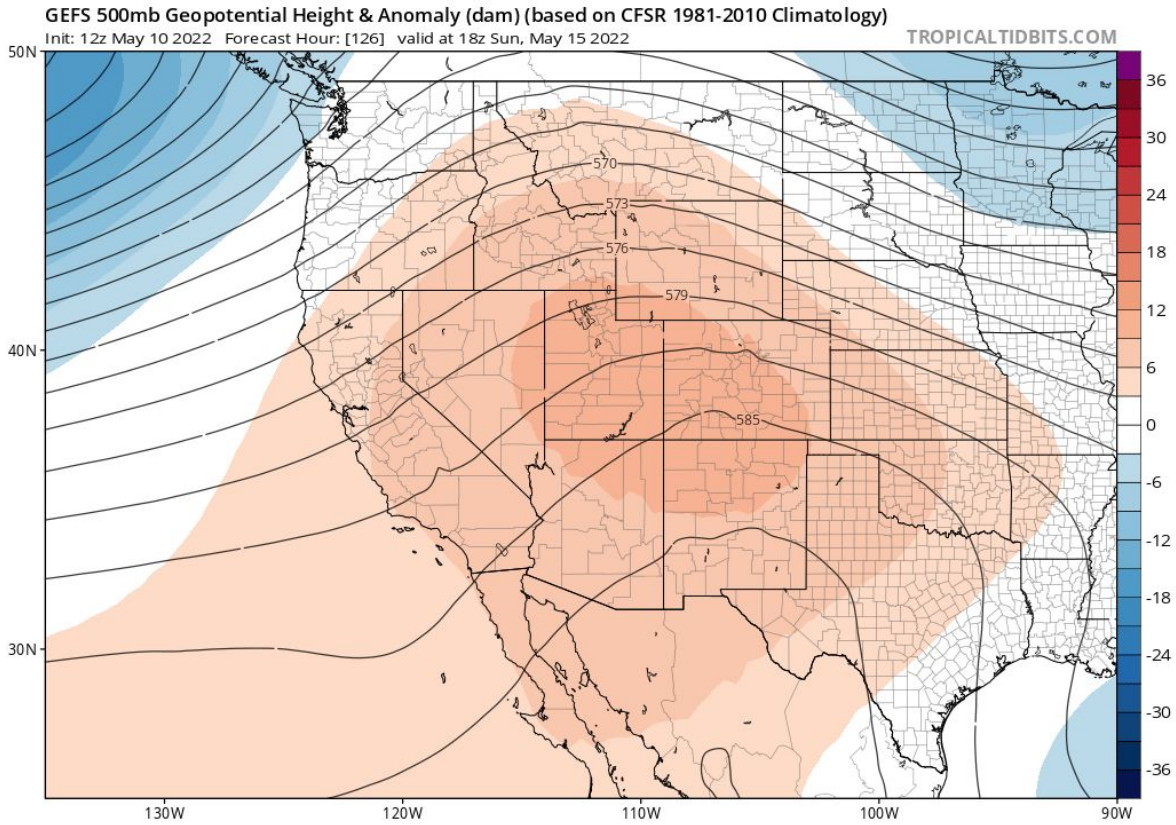
Presenter - Glen Merrill

Weather Forecast Office Utah Day 1-7 Outlook





- Strong winds and low RH through Wednesday.
- Weak storm system Wednesday night through Thursday.
- High pressure building in late week. Temps 10-15+ degrees above normal early next week, warmest south.

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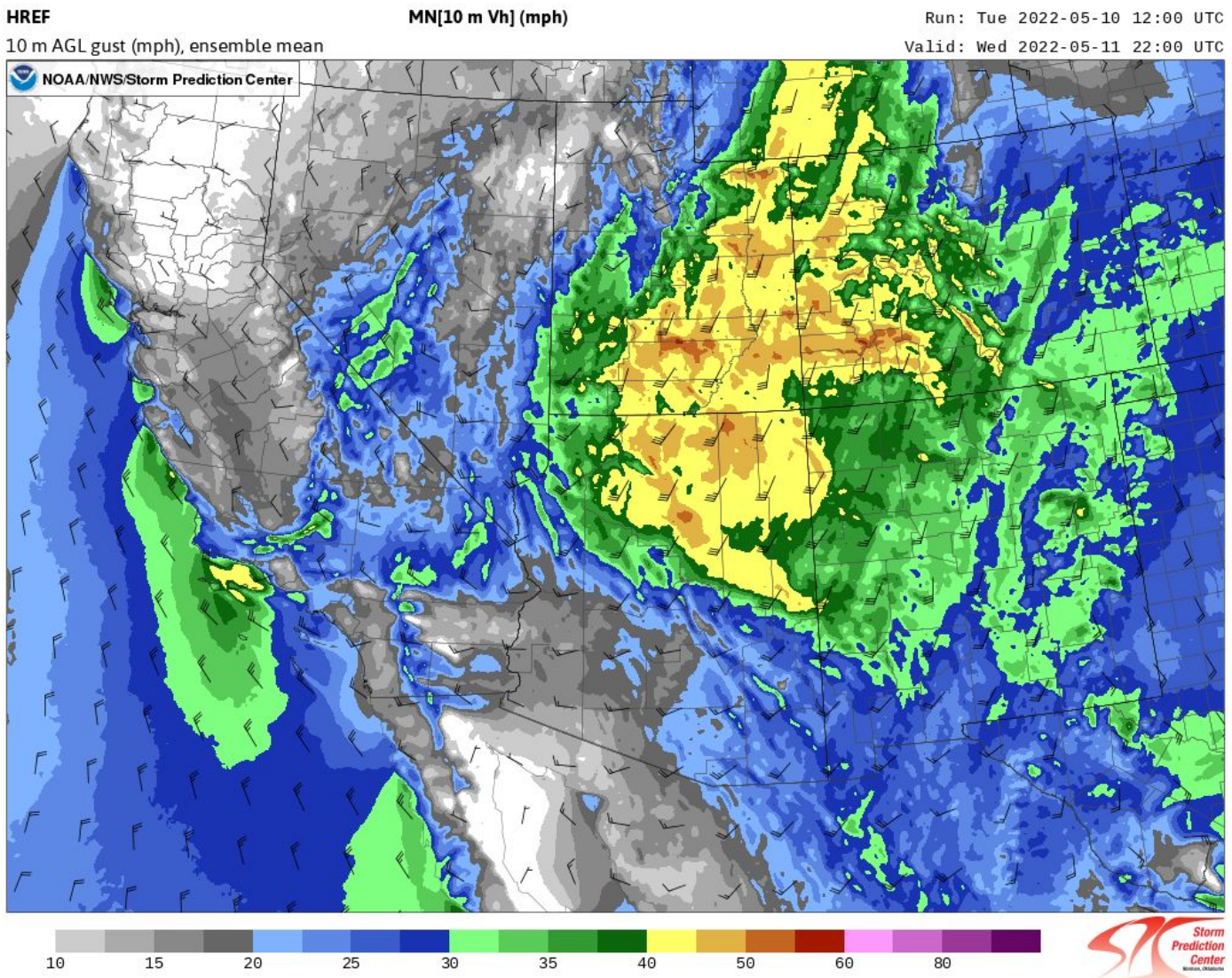
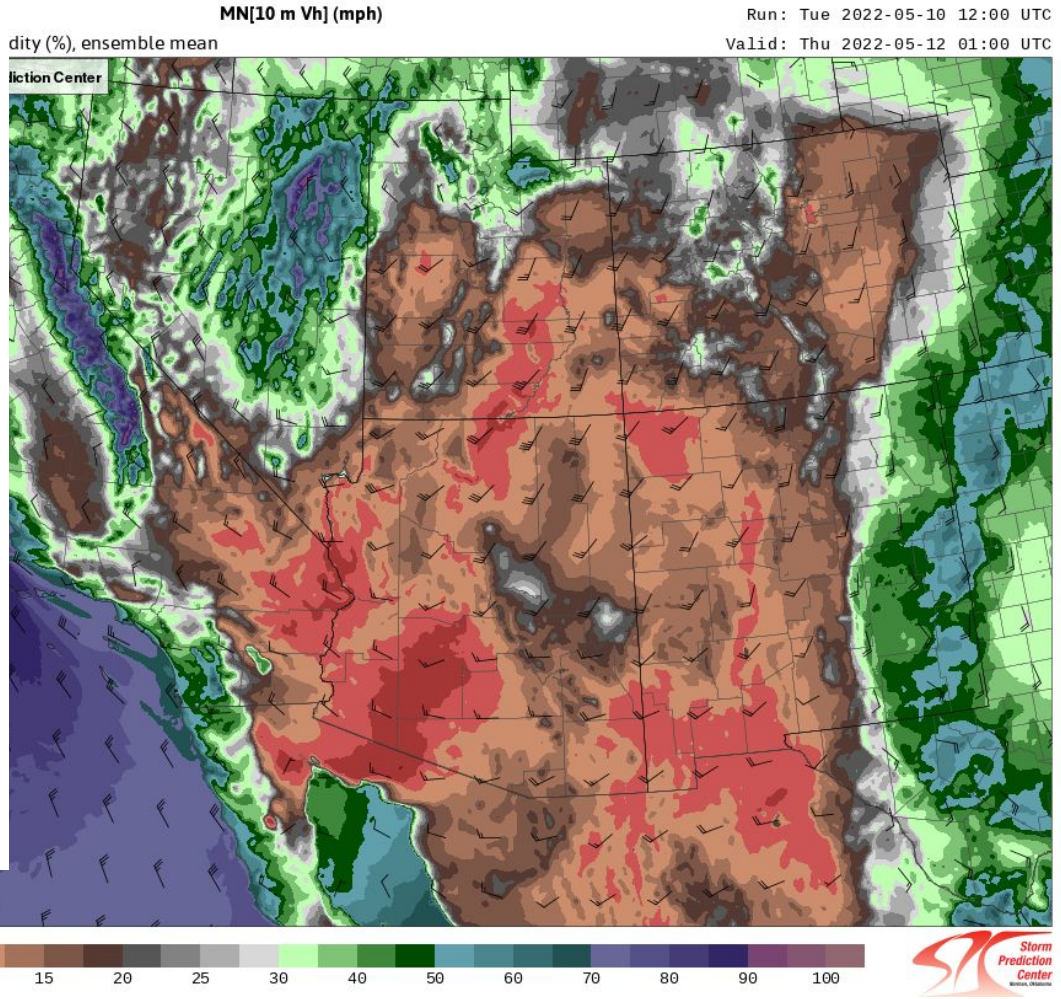
Presenter - Glen Merrill

Weather Forecast Office Utah Day 1-7 Outlook - Winds/RH Wednesday

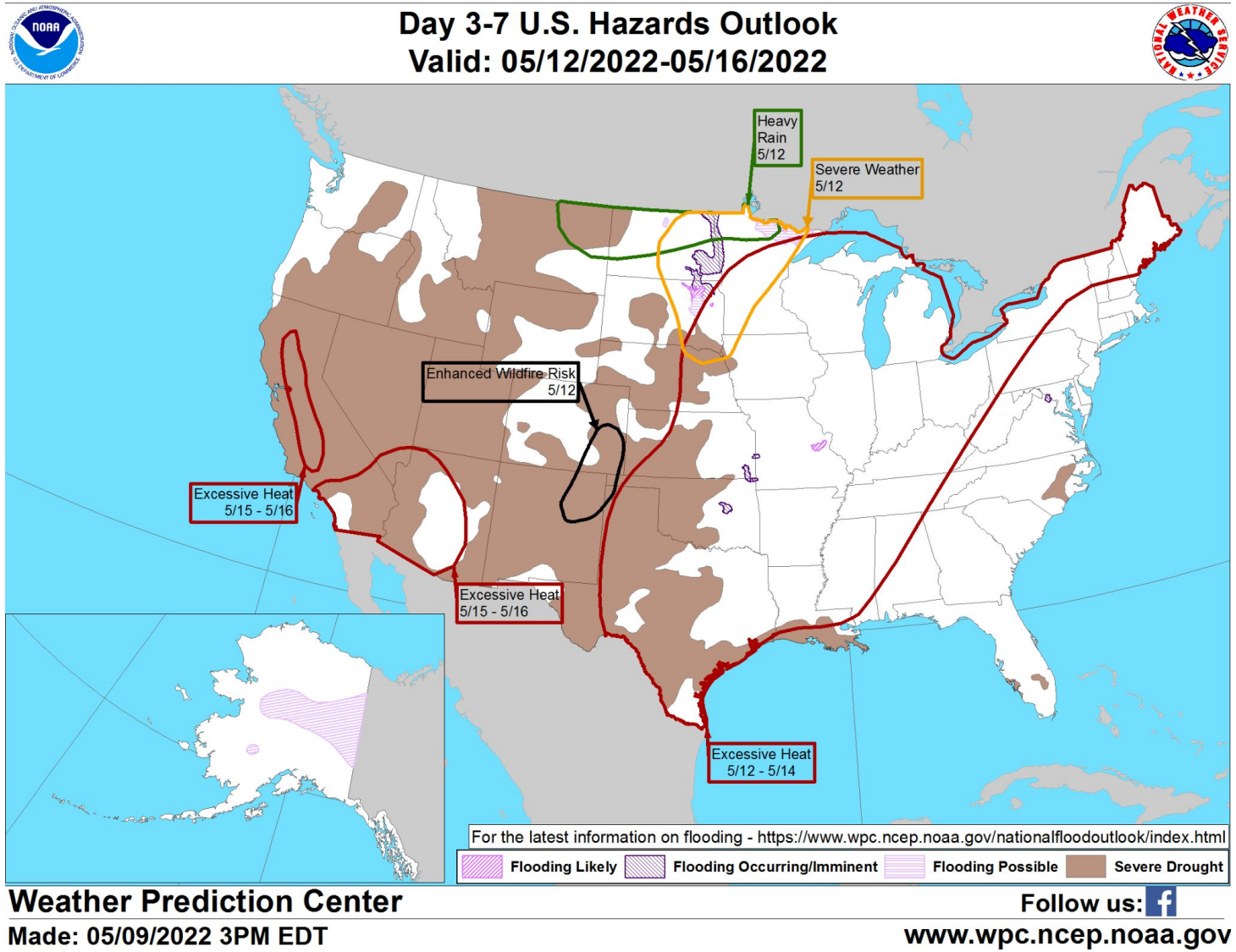




Agency - National Weather Service Weather Forecast Office

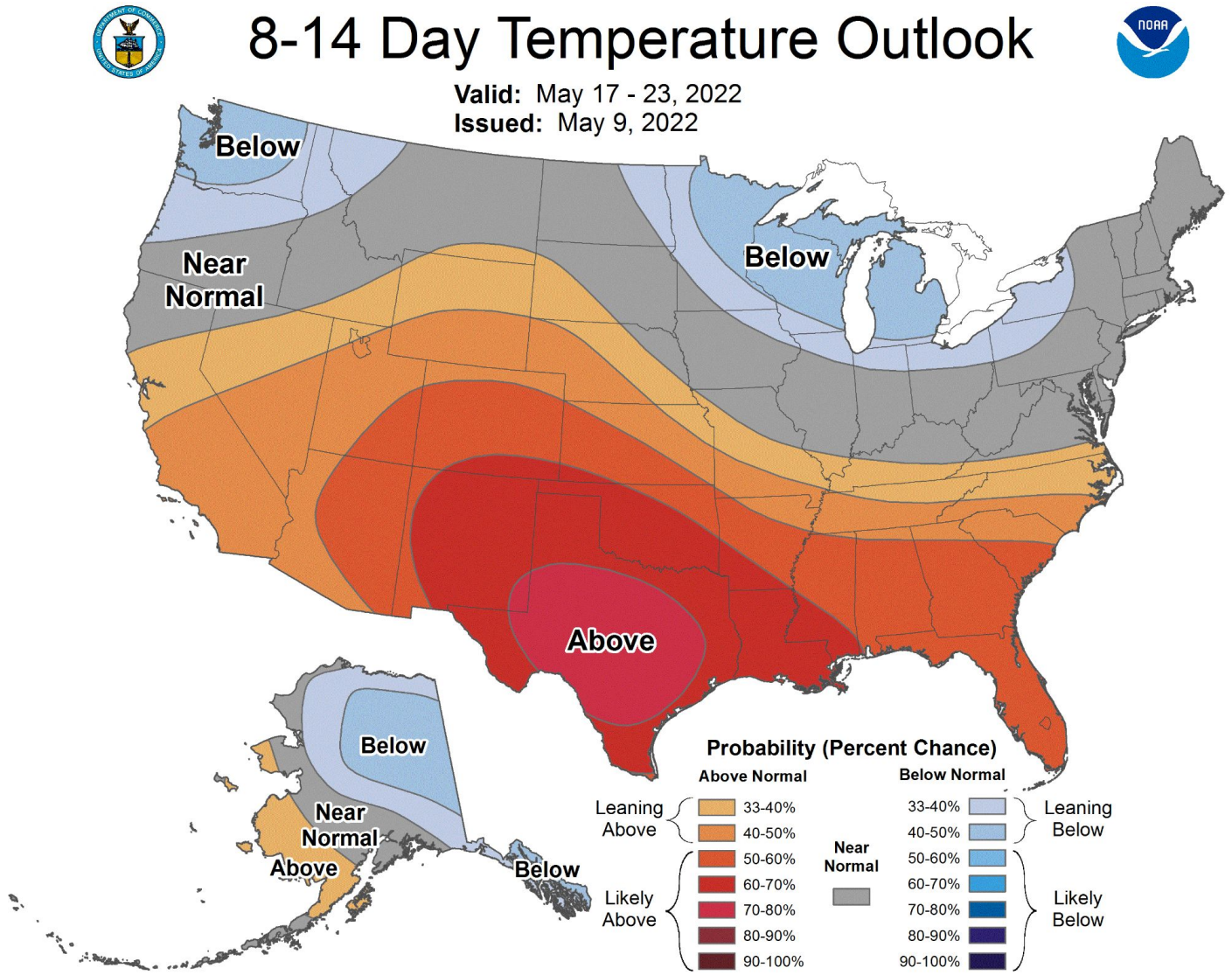
Presenter - Glen Merrill

Weather Prediction Center U.S. Day 3-7 Hazards Outlook



Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

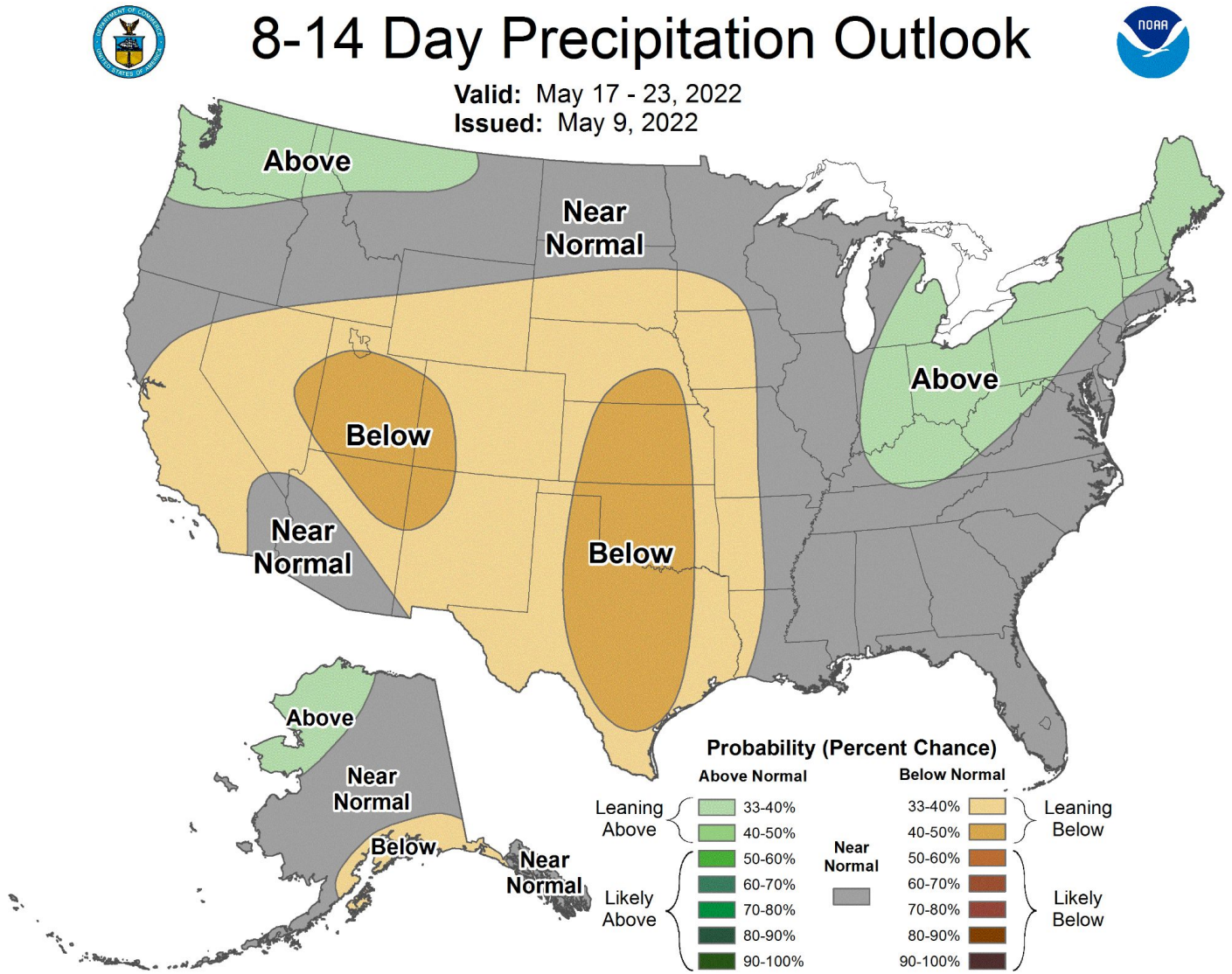
Climate Prediction Center 8 to 14 Day Outlooks - Temperature



Agency - National Weather Service Weather Forecast Office

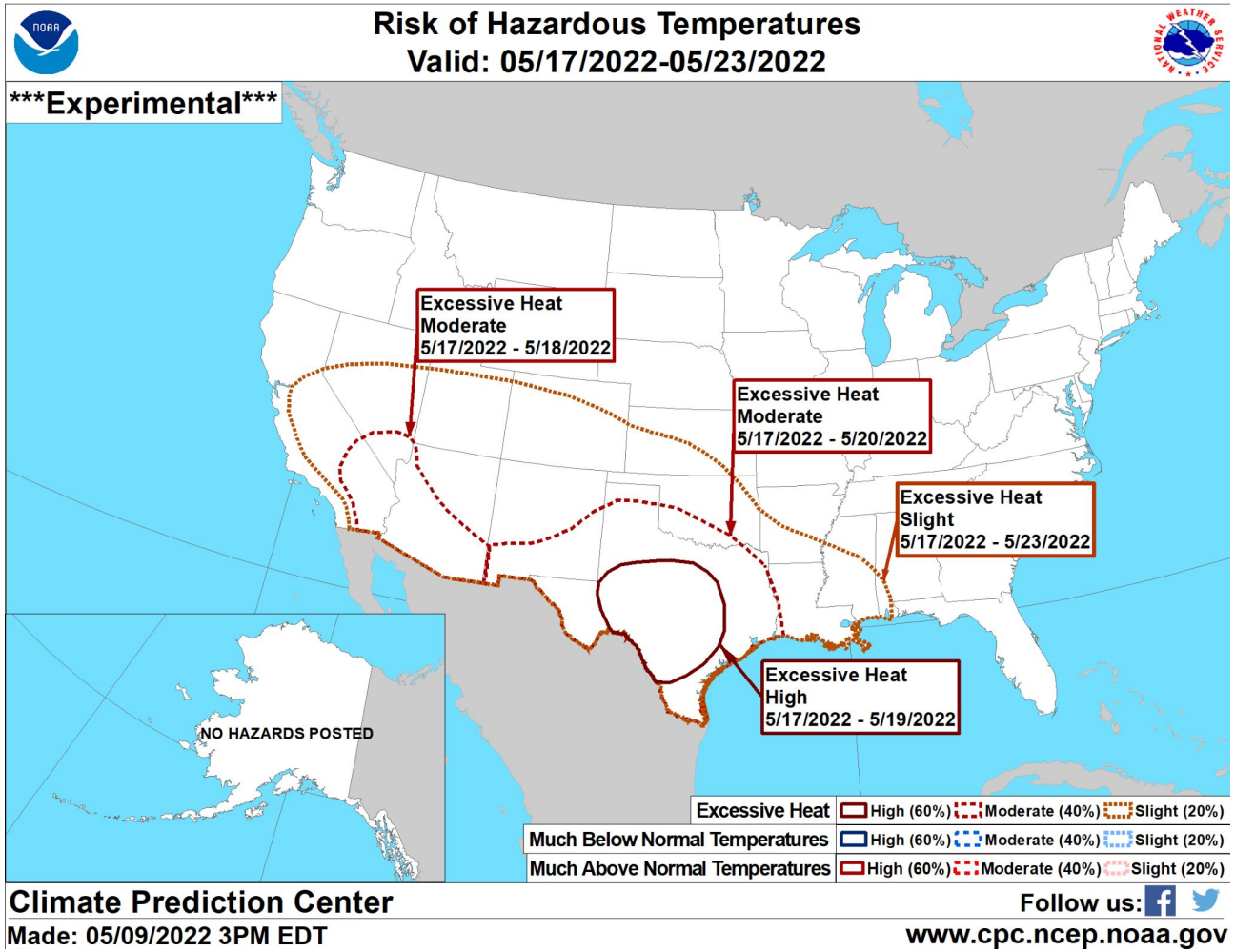
Presenter -

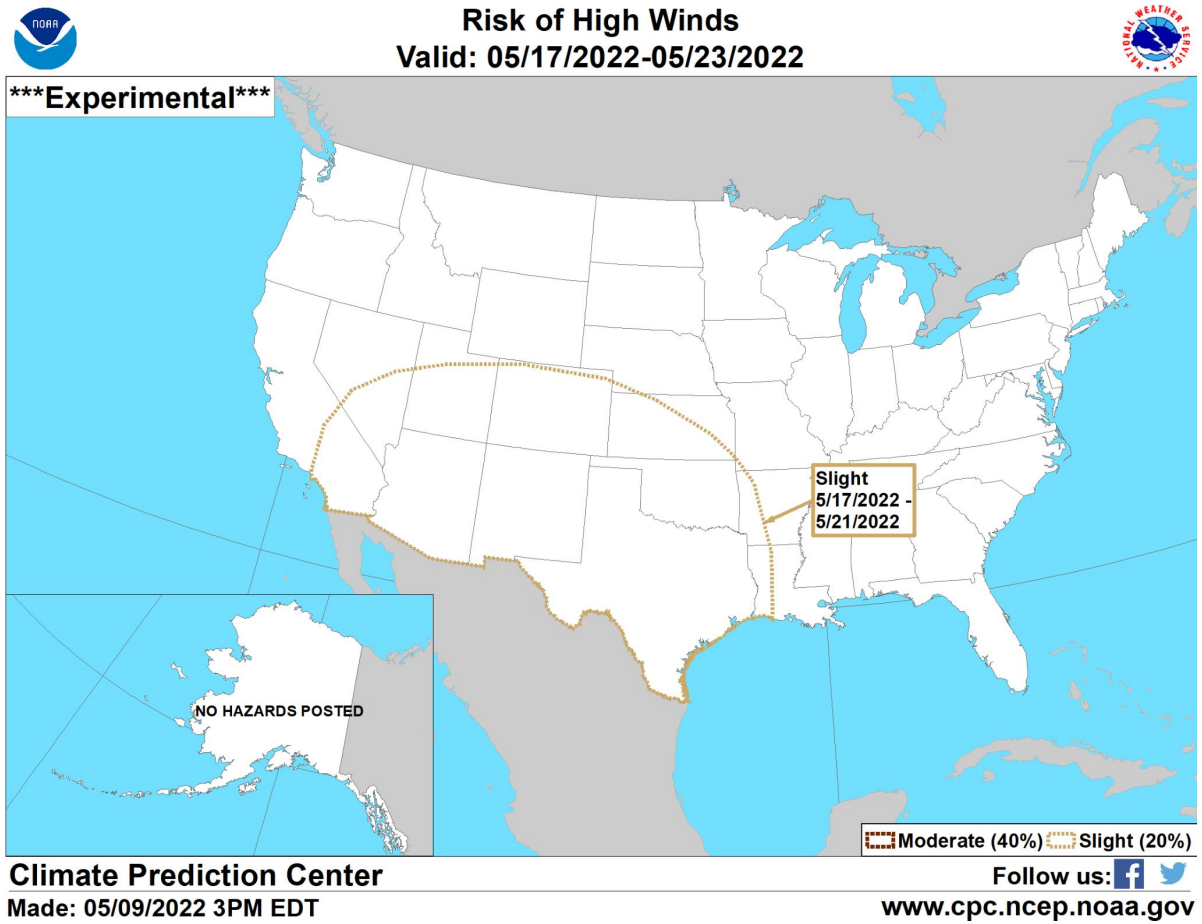
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Climate Prediction Center U.S. Week-2 Hazards Outlook



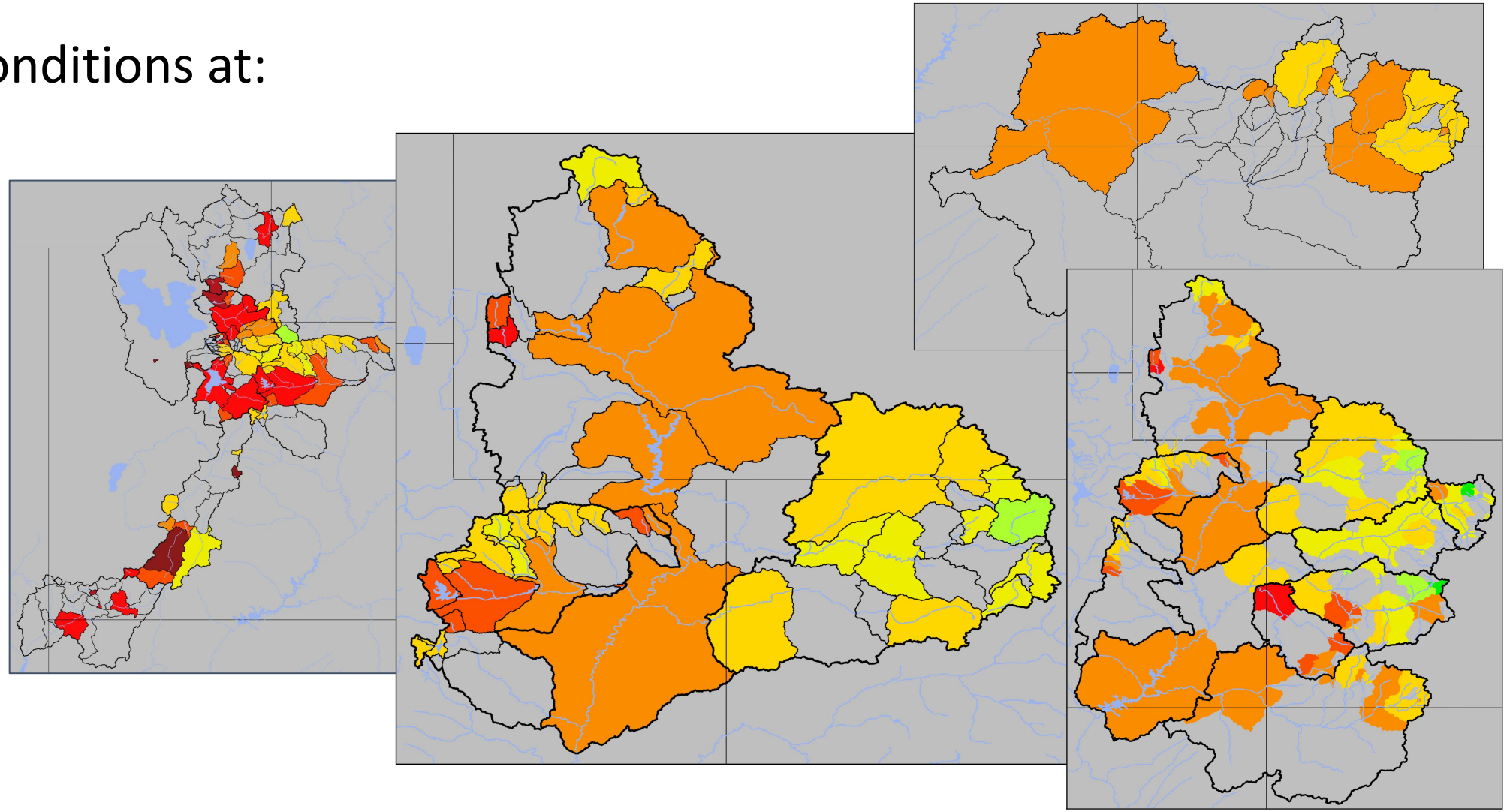


Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Water Supply Forecasts / Runoff (Percent of Average)

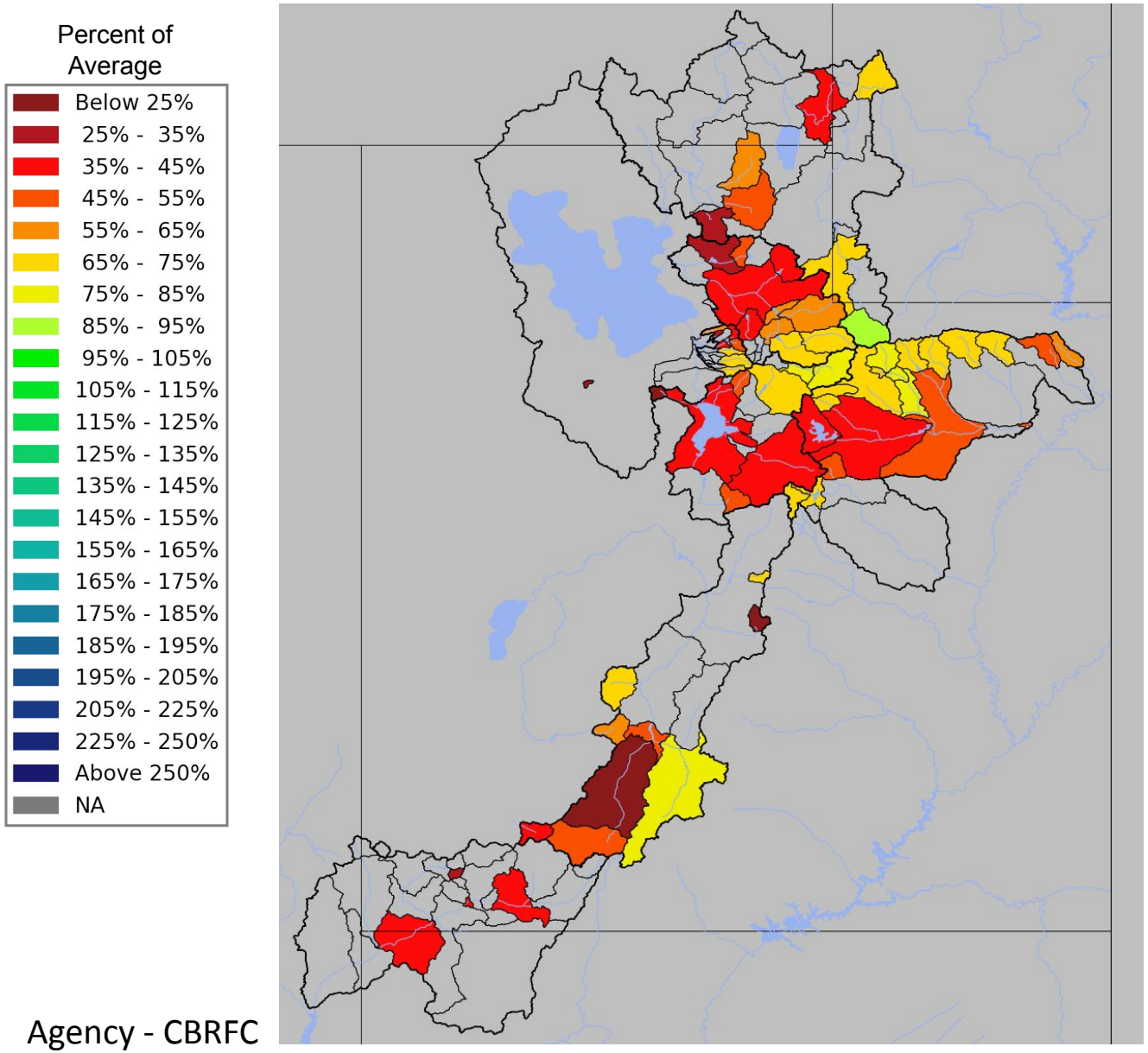
Summary of conditions at:

- Weber
- Bear
- Six Creeks
- Utah Lake
- Sevier
- Green River
- San Juan
- Lake Powell



Agency - CBRFC
Presenter - Pat Kormos

Utah Water Supply Forecasts - Overview



- May 1 Forecast for April-July Volume (includes April observations)
- April-July Forecast Streamflow Volumes are in percent of 1991-2020 average
- Increase in Bear, down or same elsewhere

Median value of the…
...individual forecasts (in % of average)
...by Forecast Group.

Weber	55%
Bear	60%
Six Creeks	60%
Provo / Utah Lake	60%
Sevier	55%
Duchesne	70%
Virgin	40%

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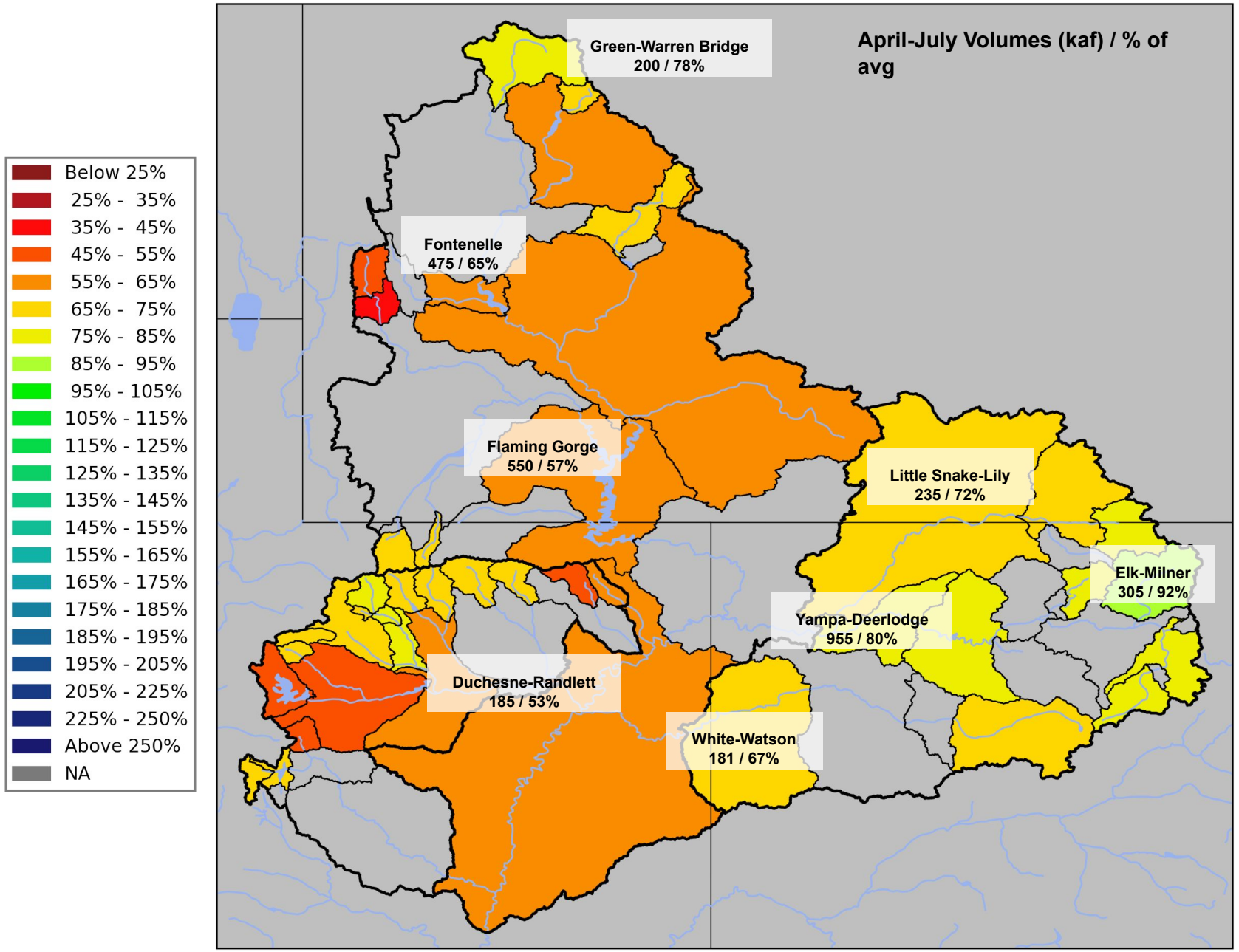
Presenter - Pat Kormos

May 1st Water Supply Forecasts: Green, Yampa, White, Duchesne



May 1st 2022 Forecasts

Volume (kaf) / % of 1991-2020 avg

Forecast Ranges & (1-month Trend)

Upper Green: 45 - 80%
(0-15% increase)

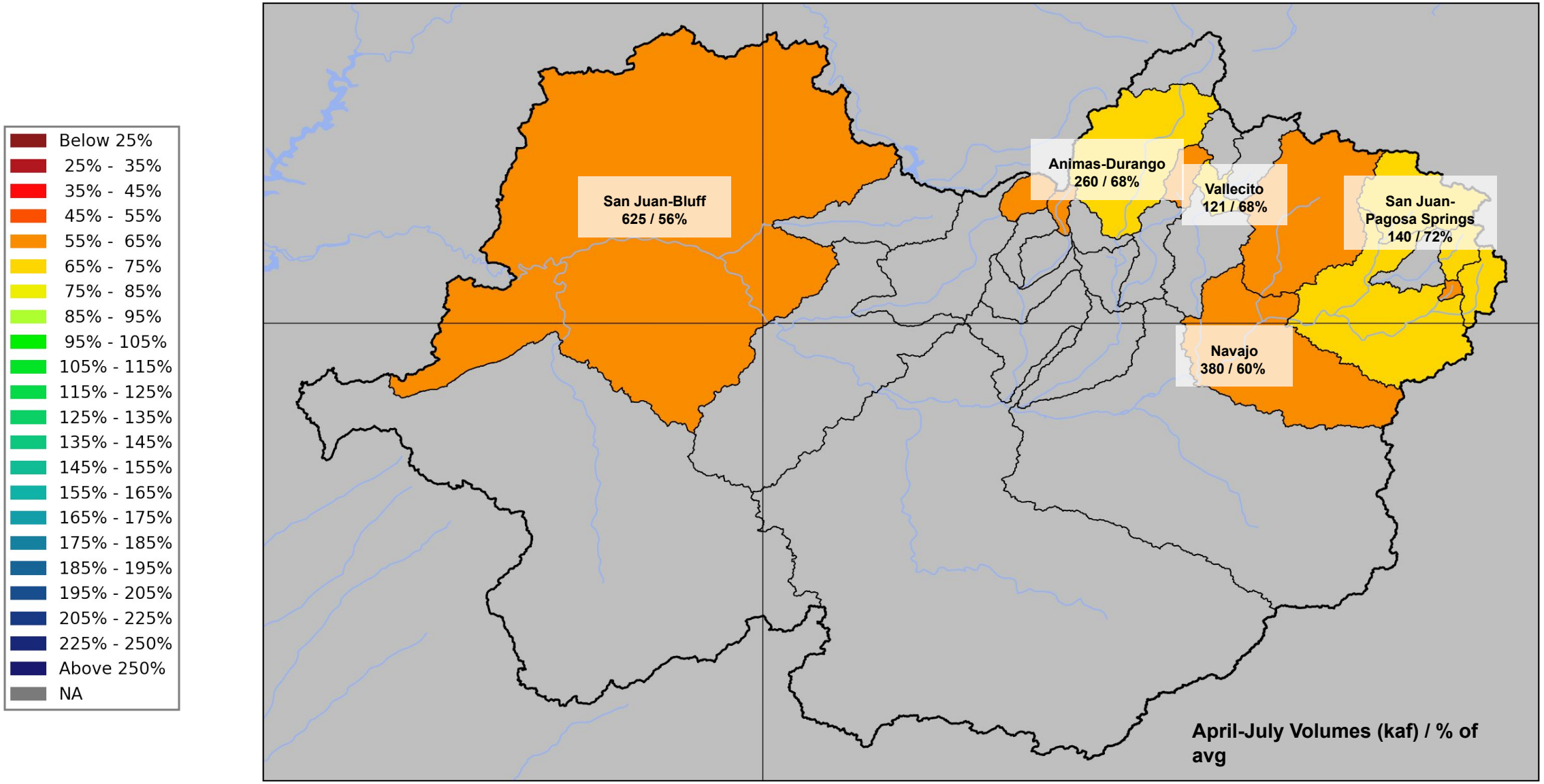
Yampa/White: 65 - 90%
(-5% - +5% change)

Duchesne: 50 - 85%
(0-15% decrease)

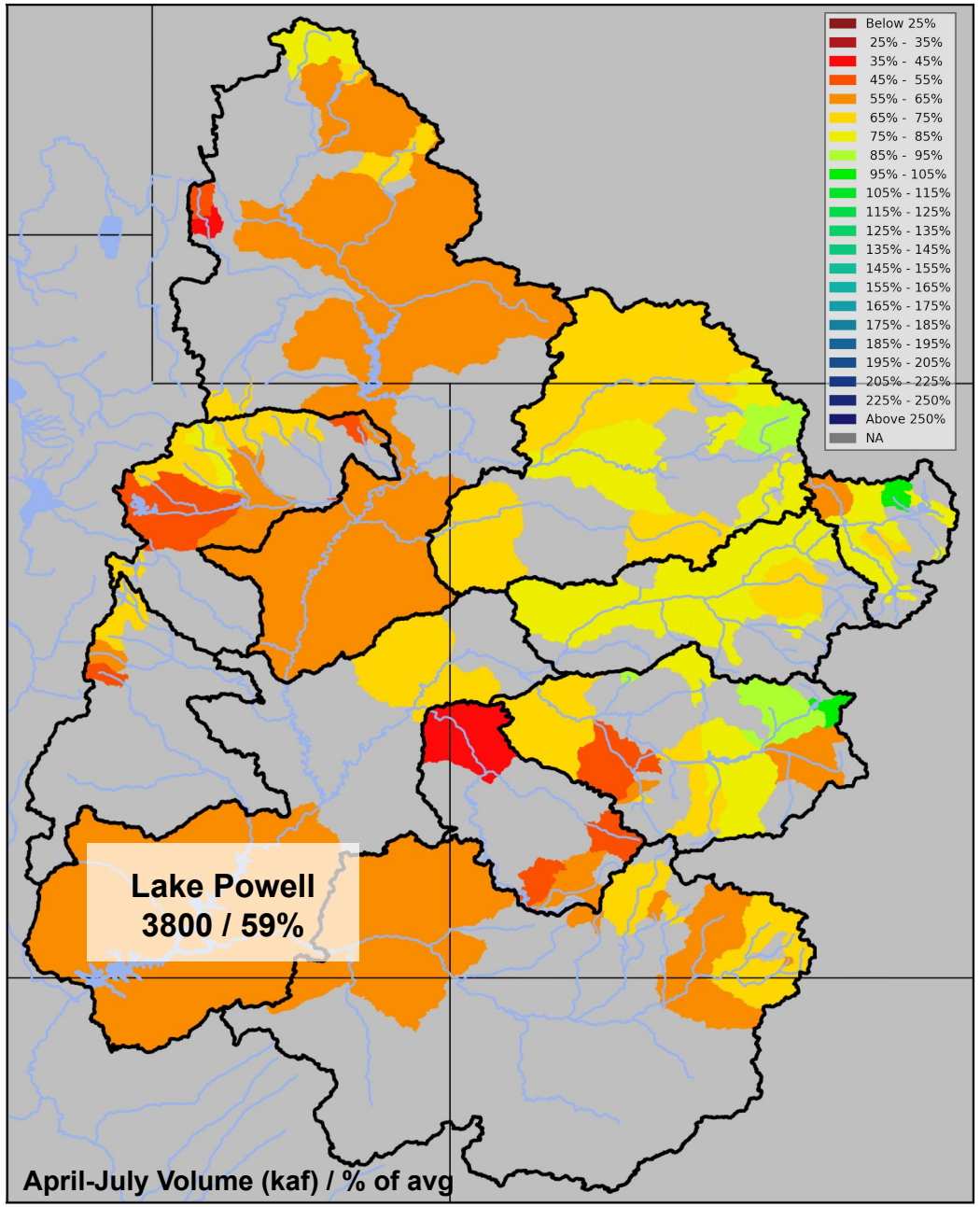
May 1st Water Supply Forecasts: San Juan

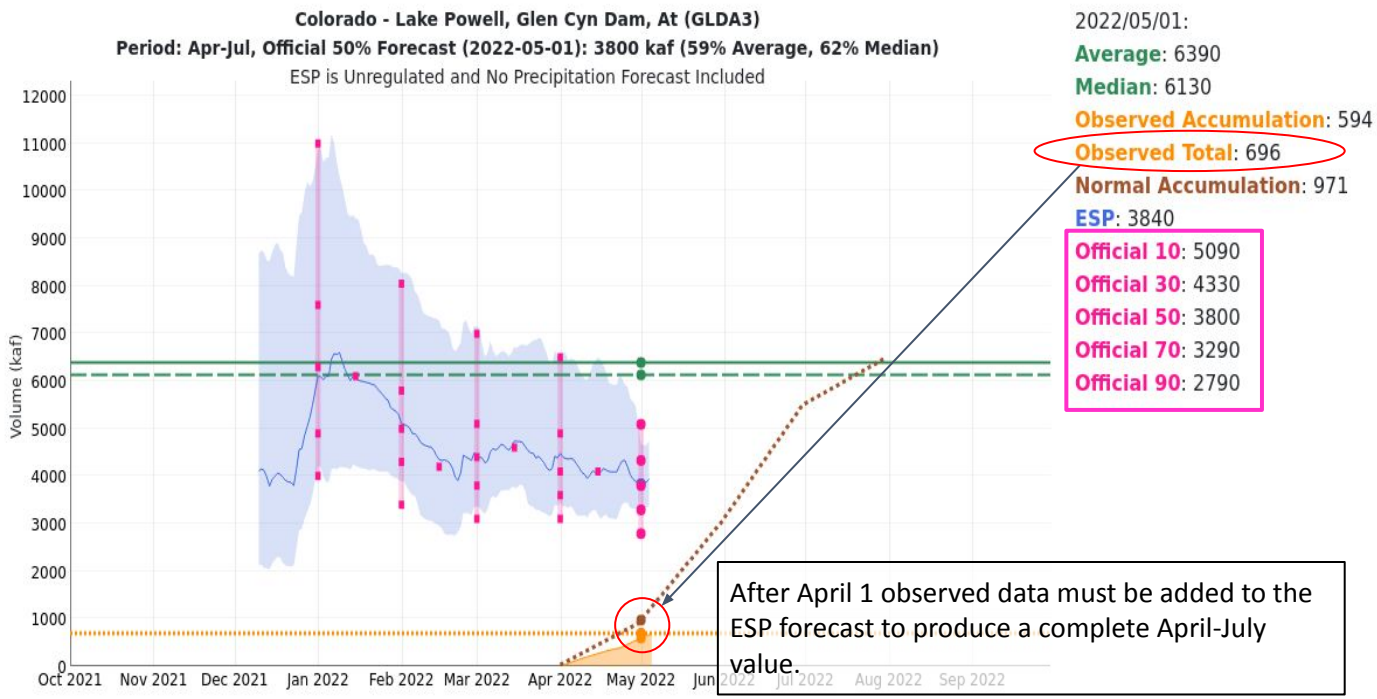
Forecast Range & (1-month Trend):

55 - 70% of average (0-5% decrease)



May 1st Water Supply Forecasts: Upper Colorado (Lake Powell)





Forecast uncertainty has decreased since the early season forecasts but still exists due to uncertainty in future weather and model states.

Official 10: 5090 →	10% chance of exceeding 5090 KAF / 80% avg 90% chance of **NOT** exceeding 5090 KAF / 80% avg
Official 30: 4330 Official 50: 3800 →	50% chance of exceeding 3800 KAF / 59% avg 50% chance of **NOT** exceeding 3800 KAF / 59% avg
Official 70: 3290 Official 90: 2790 →	90% chance of exceeding 2790 KAF / 44% avg 10% chance of NOT exceeding 2790 KAF / 44% avg

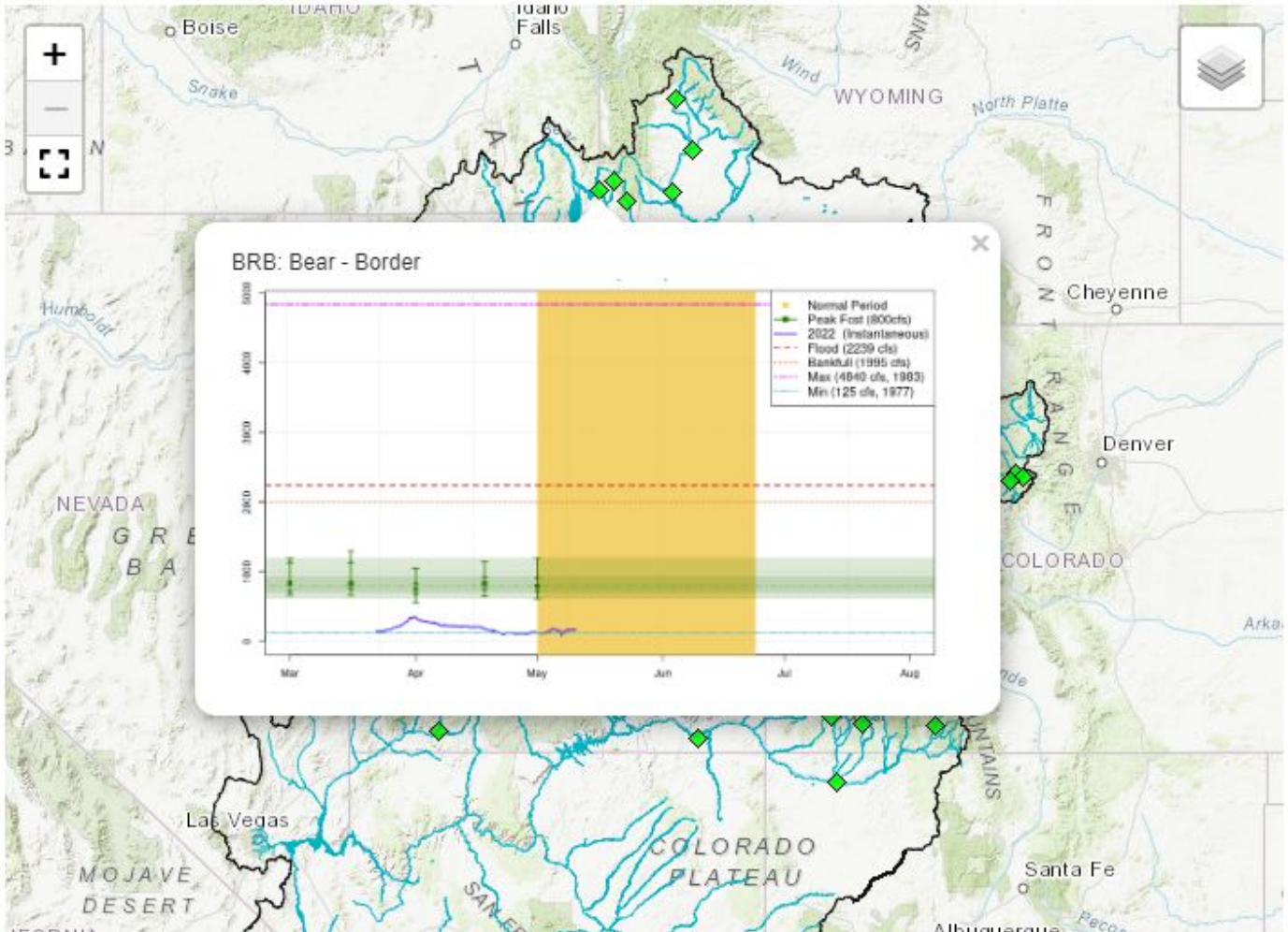
*20% chance observed volume could fall out of the 10-90 range.

Colorado Basin
River Forecast Center
National Weather Service

Home | Rivers | Snow | Water Supply | Reservoirs | Weather | Climate | Help | About | News

Conditions Map

Help



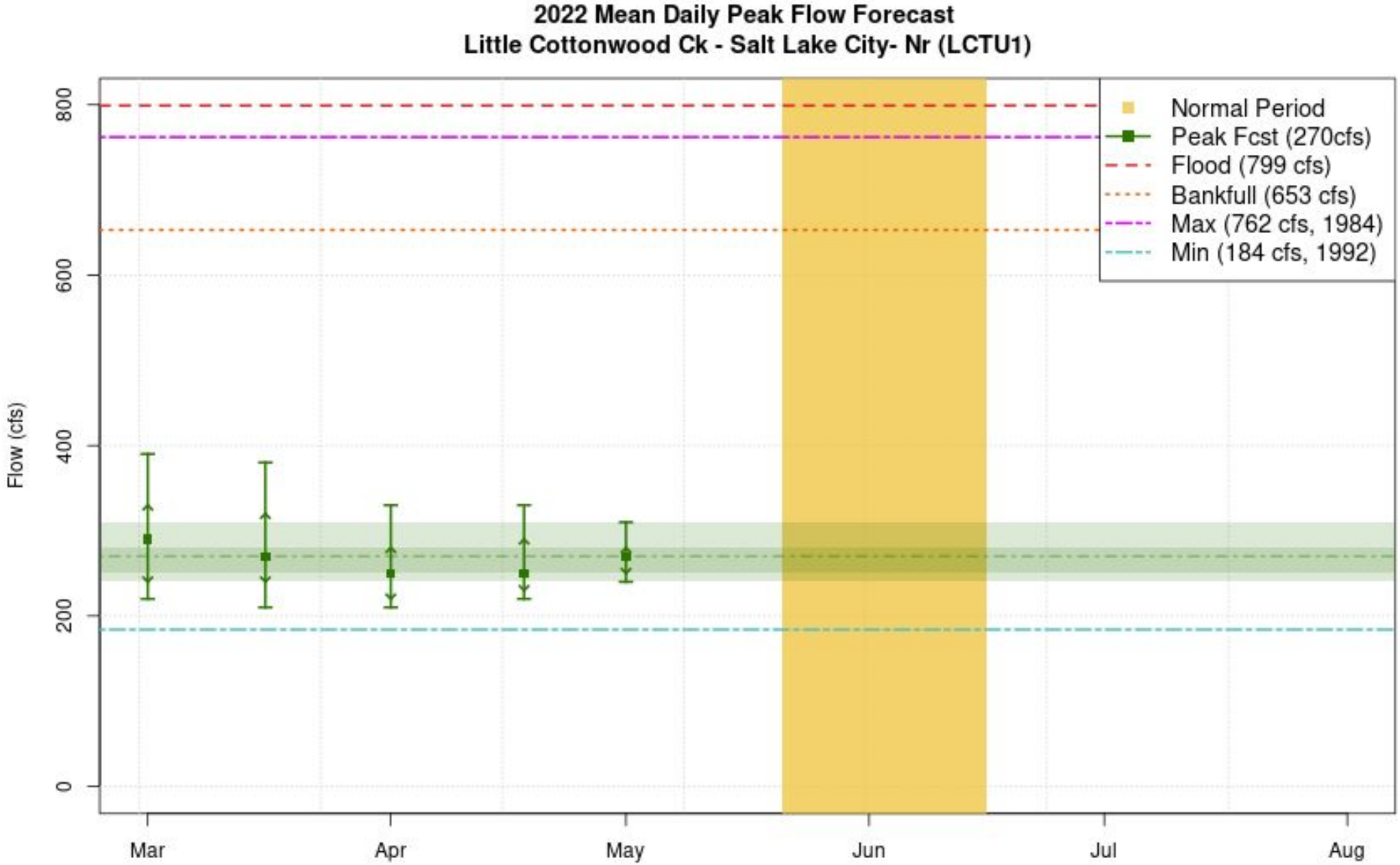
- River Conditions
- Snow Conditions
- Water Supply Forecasts
- Peak Flow Forecasts

Latest Official Forecast Date: 2022-05-01 Help
Latest Model Run Date: 2022-05-10

☑ Show Hide Other Types

◉ Official Mean Daily Peak Flow Forecast
○ Official Instantaneous Peak Flow Forecast
○ Latest Model Guidance Percentile Ranking

◇ No Forecast
◆ No Flood Stage
◆ <10%
◆ >10-25%
◆ >25-50%
◆ >50%

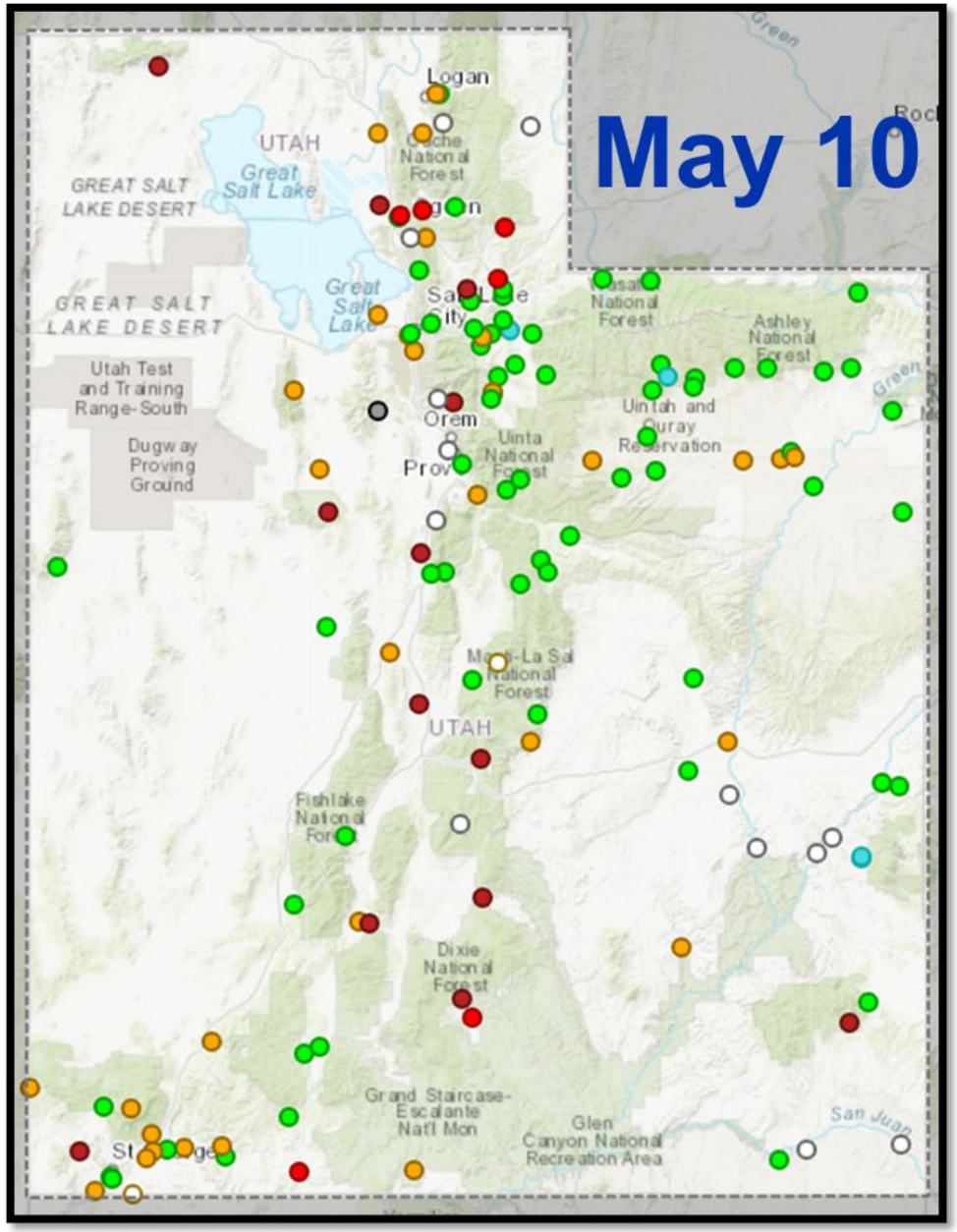


These graphics are updated approximately every two weeks between 3/1 and 5/1

Plot Created 2022-05-10 13:38:12

CBRFC / NWS / NOAA

Current Streamflow Conditions



Day-of-Year Status	# Gages	% Gages
All-time high for this day-of-year	0	0.0%
Much above normal for this day-of-year	0	0.0%
Above normal for this day-of-year	4	2.9%
Normal for this day-of-year	66	48.5%
Below normal for this day-of-year	31	22.8%
Much below normal for this day-of-year	13	9.6%
All-time low for this day-of-year	6	4.4%
Not ranked - insufficient record	13	9.6%
Not ranked - stream not flowing	2	1.5%
Not ranked - no recent measurement	1	0.7%

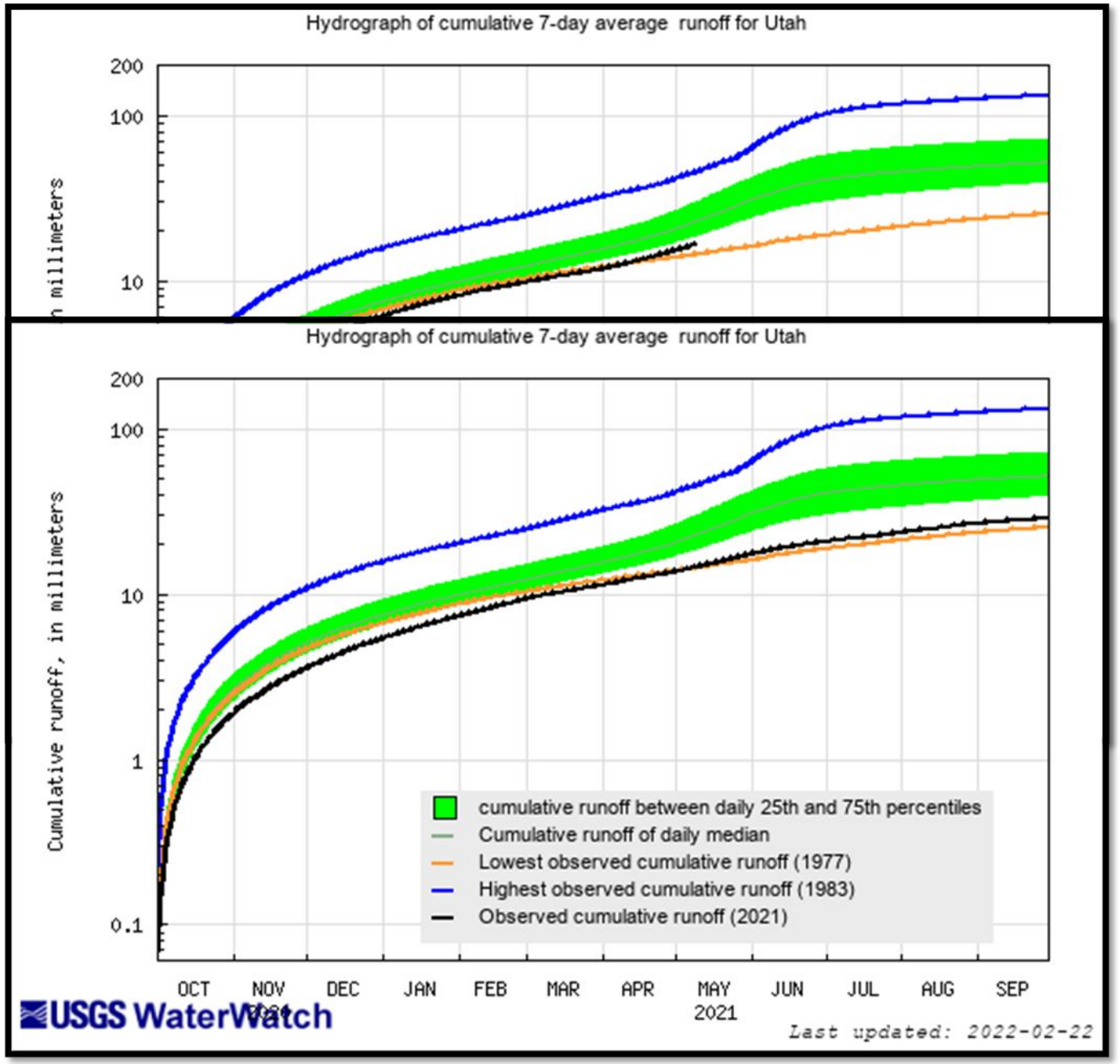
Streamflow: Status

Above flood stage	
All-time high for this day	100th percentile (maximum)
Much above normal	>90th percentile
Above normal	76th – 90th percentile
Normal	25th – 75th percentile
Below normal	10th – 24th percentile
Much below normal	<10th percentile
All-time low for this day	0th percentile (minimum)
Not flowing	
Not ranked	
Measurement flag	
Recent measurement unavailable	

Agency - USGS UT WSC
Presenter - Ryan Rowland

USGS science for a changing world

Area Based Cumulative Runoff for Utah



- **Area based runoff computed from mixed regulated and unregulated streamflows**

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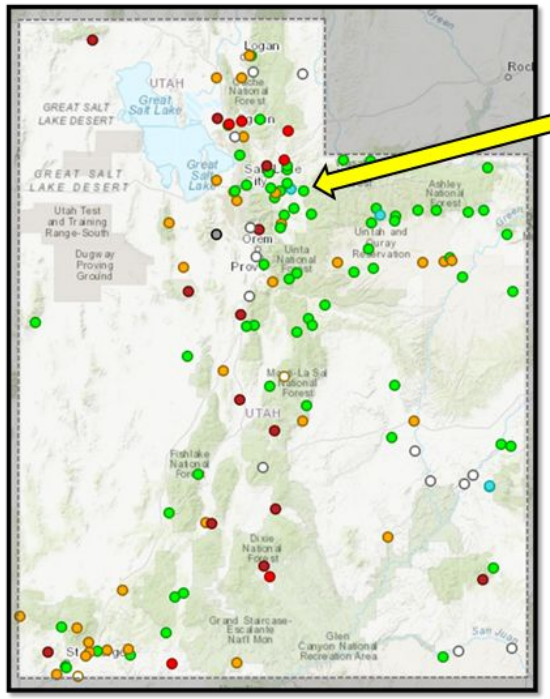
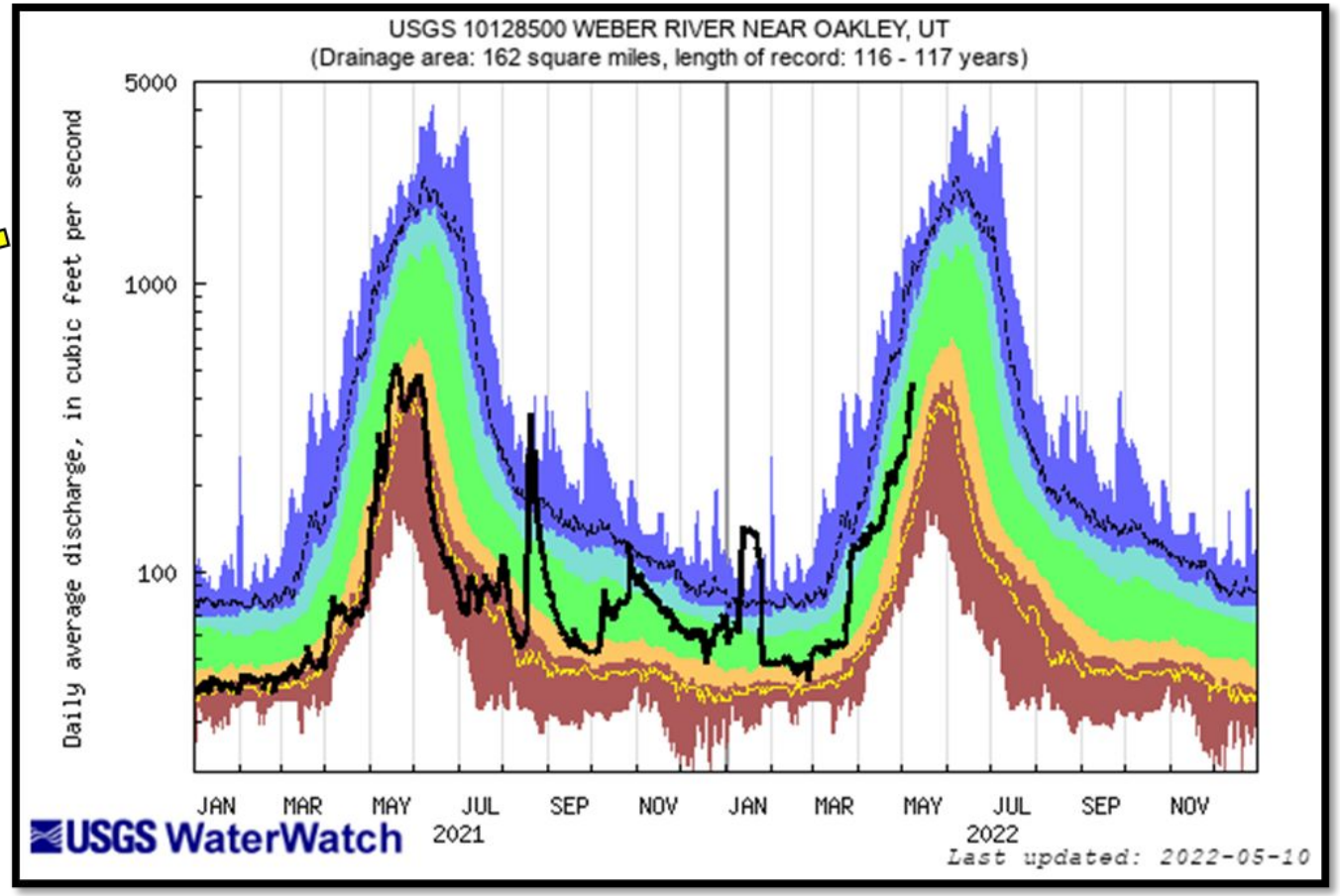
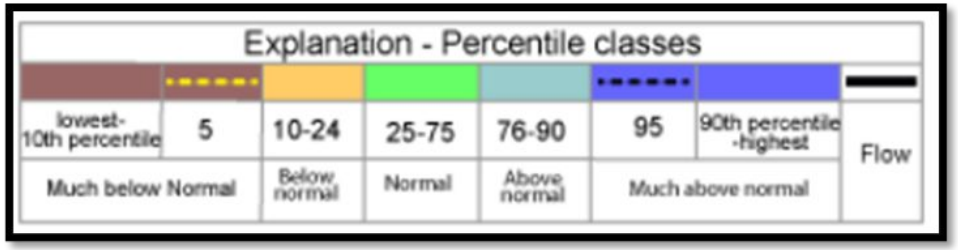
Streamflow at Selected Gages







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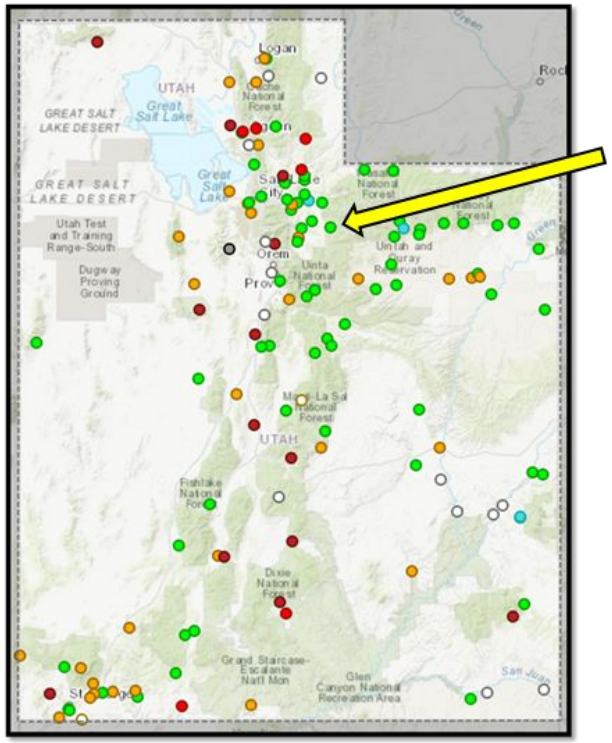
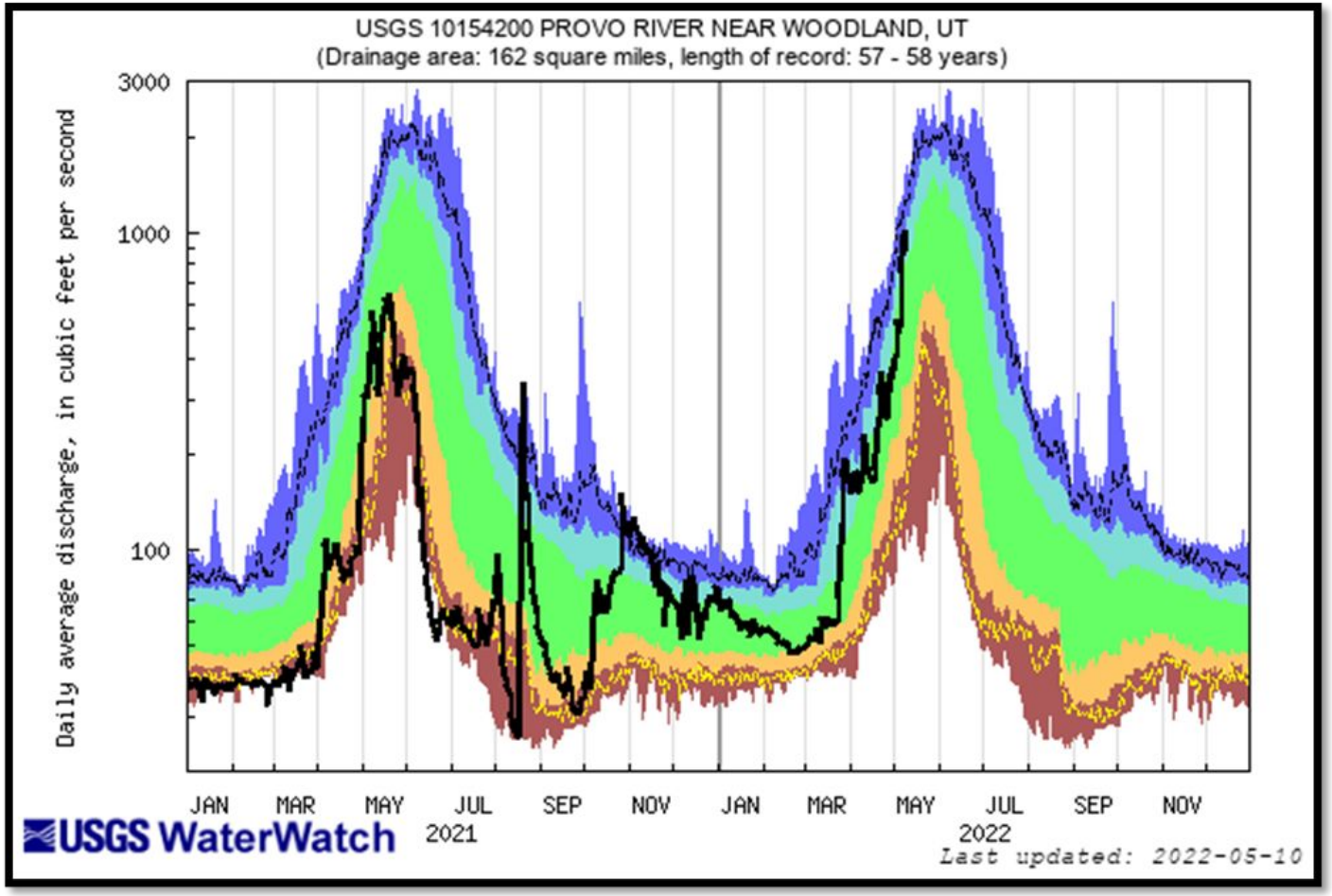
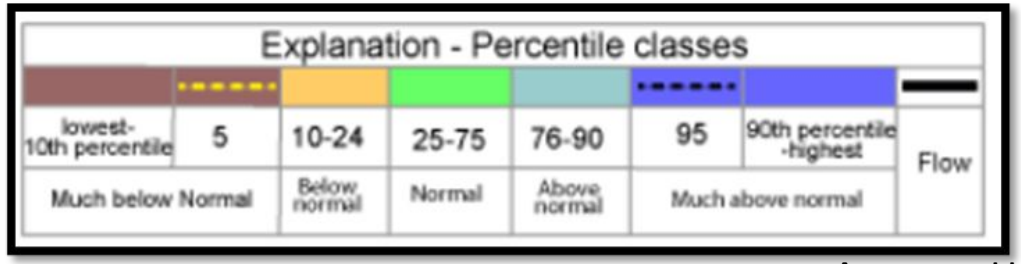
Streamflow at Selected Gages







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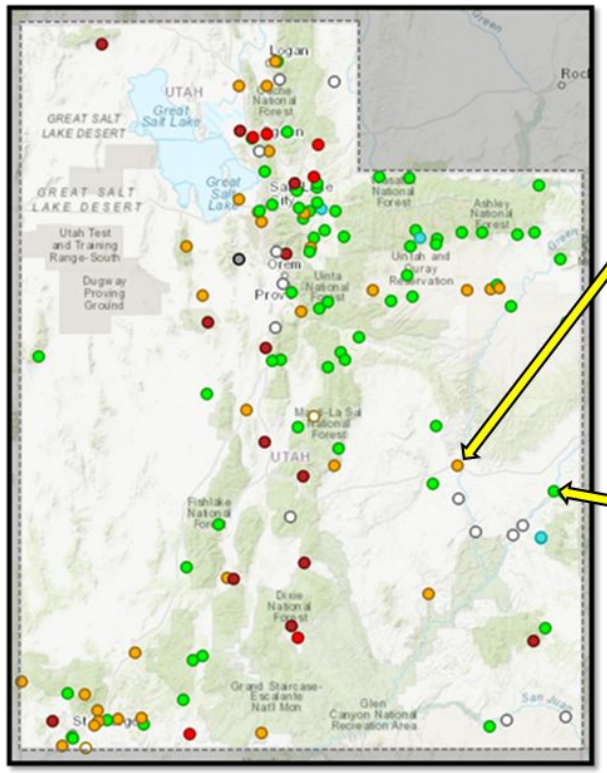
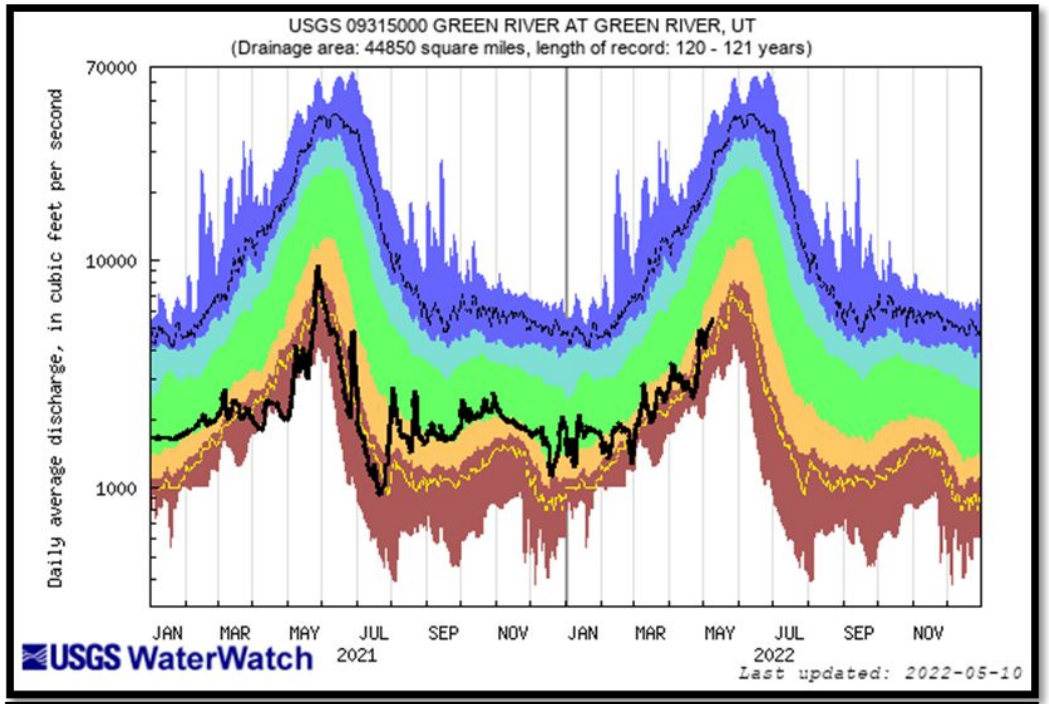
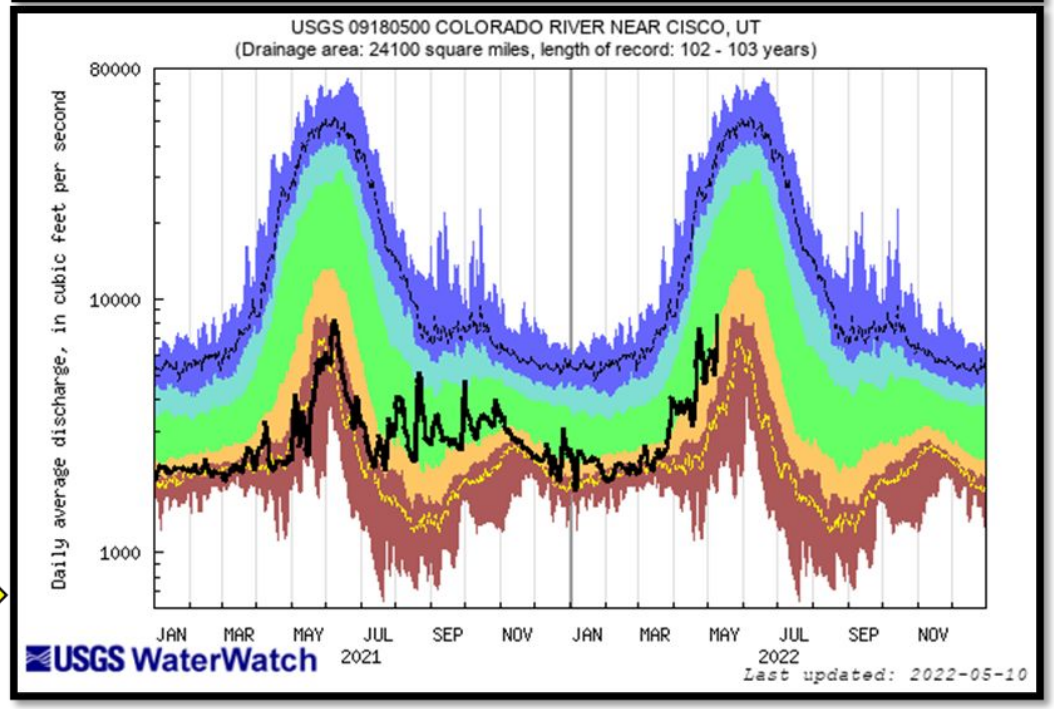
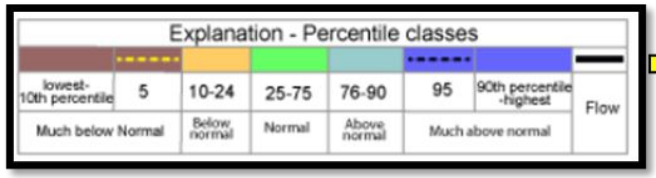
Streamflow at Selected Gages









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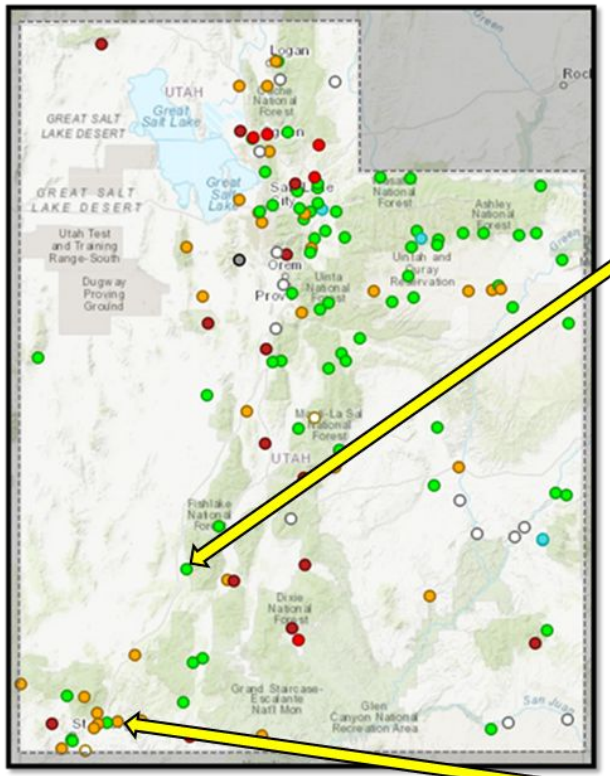
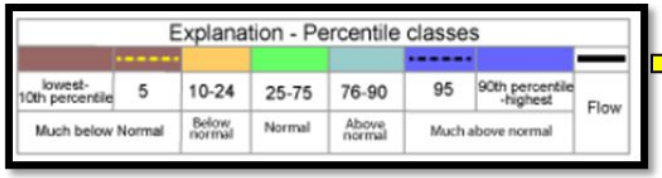
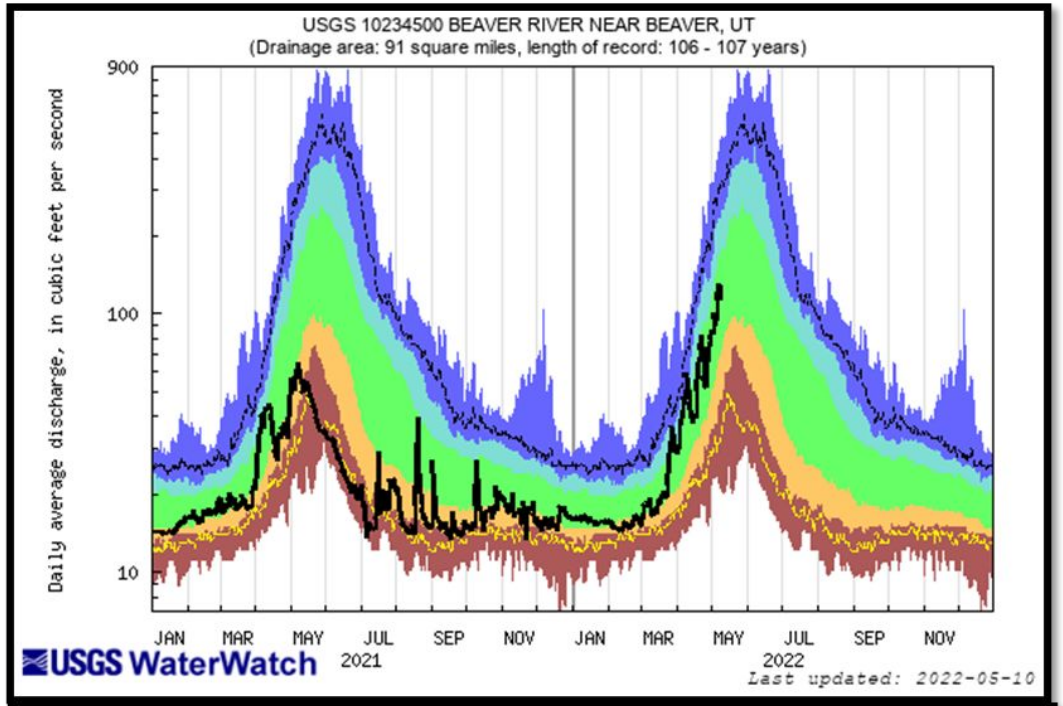
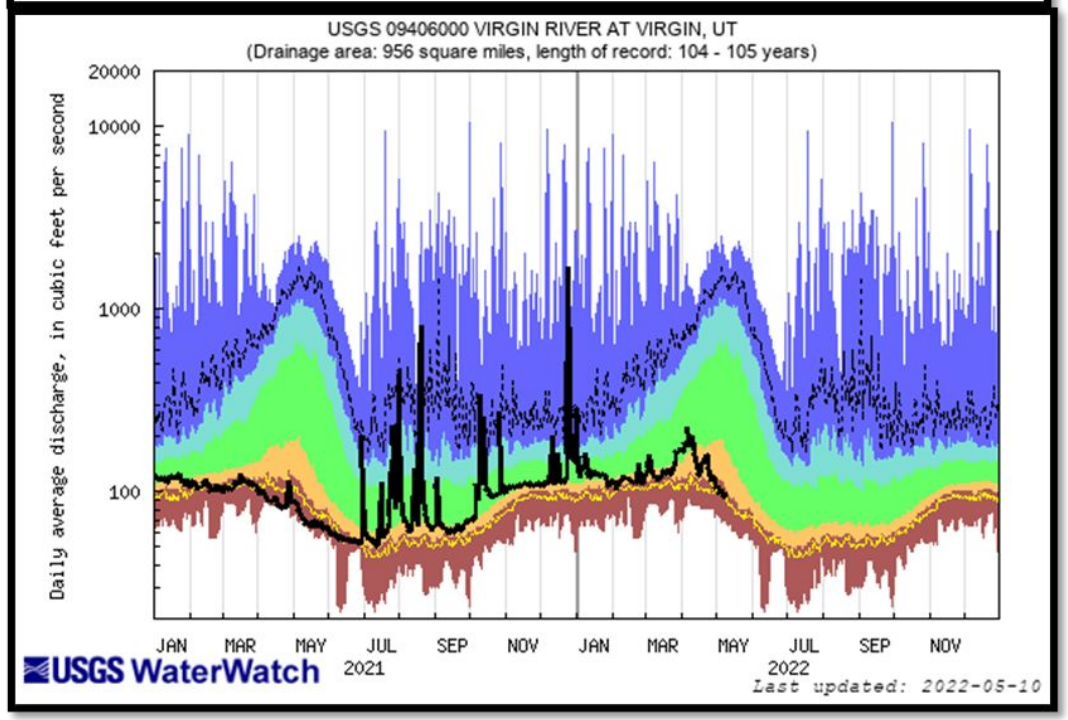
Streamflow at Selected Gages









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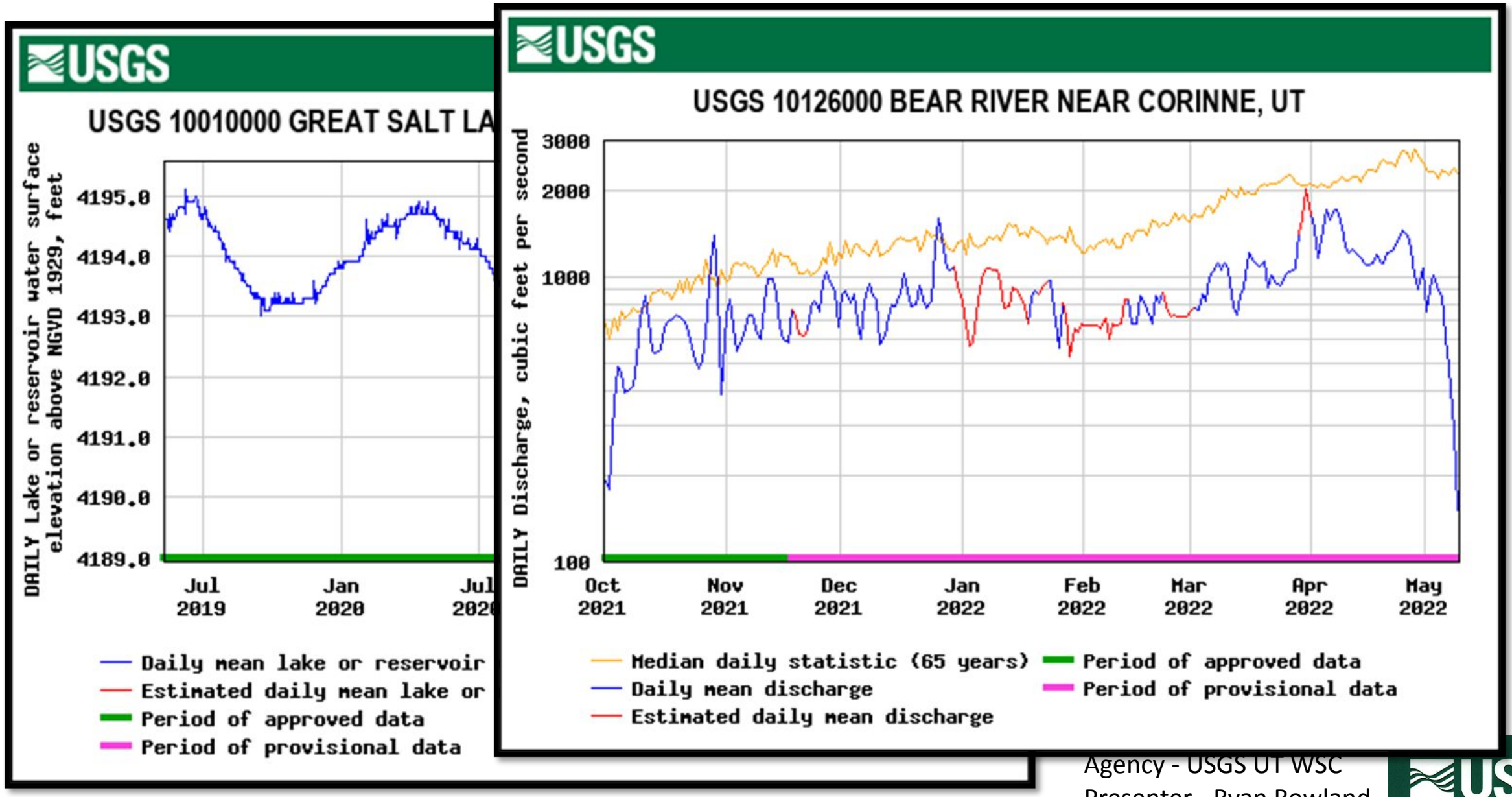
Great Salt Lake Water Surface Elevation



Agency - USGS UT WSC
Presenter - Ryan Rowland

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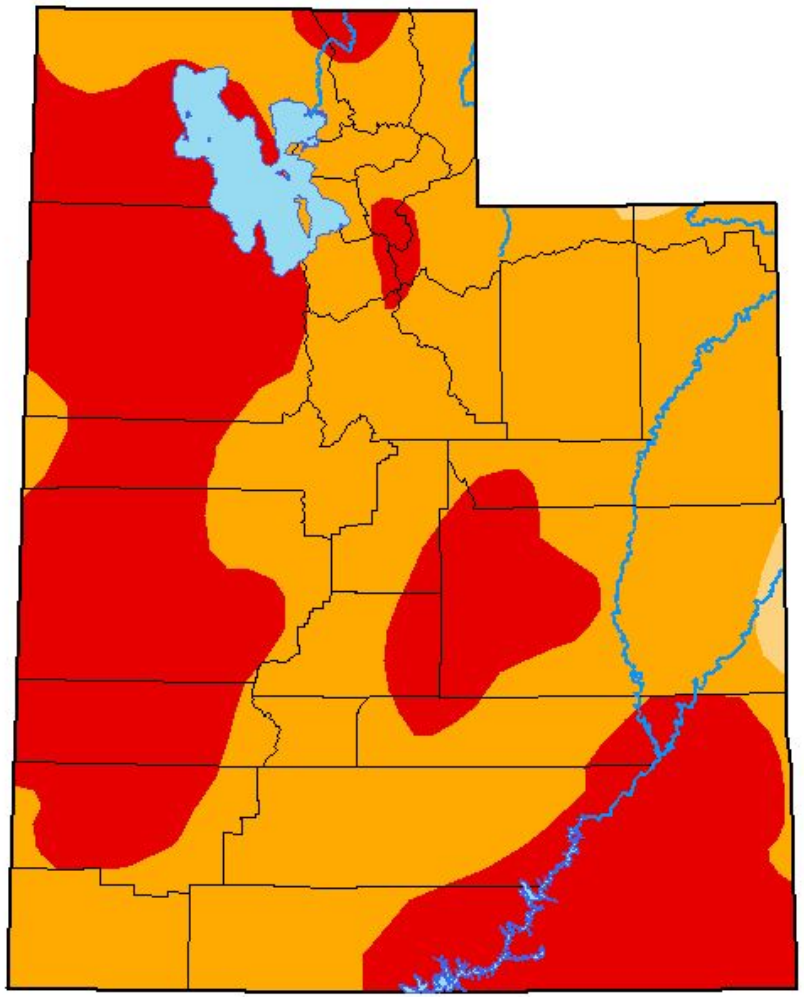
U.S. Drought Monitor

Utah

May 3, 2022

Released Thursday, May. 5, 2022)

Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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droughtmonitor.unl.edu

1-month EDDI: Changes during the 30 days ending on May 4, 2022